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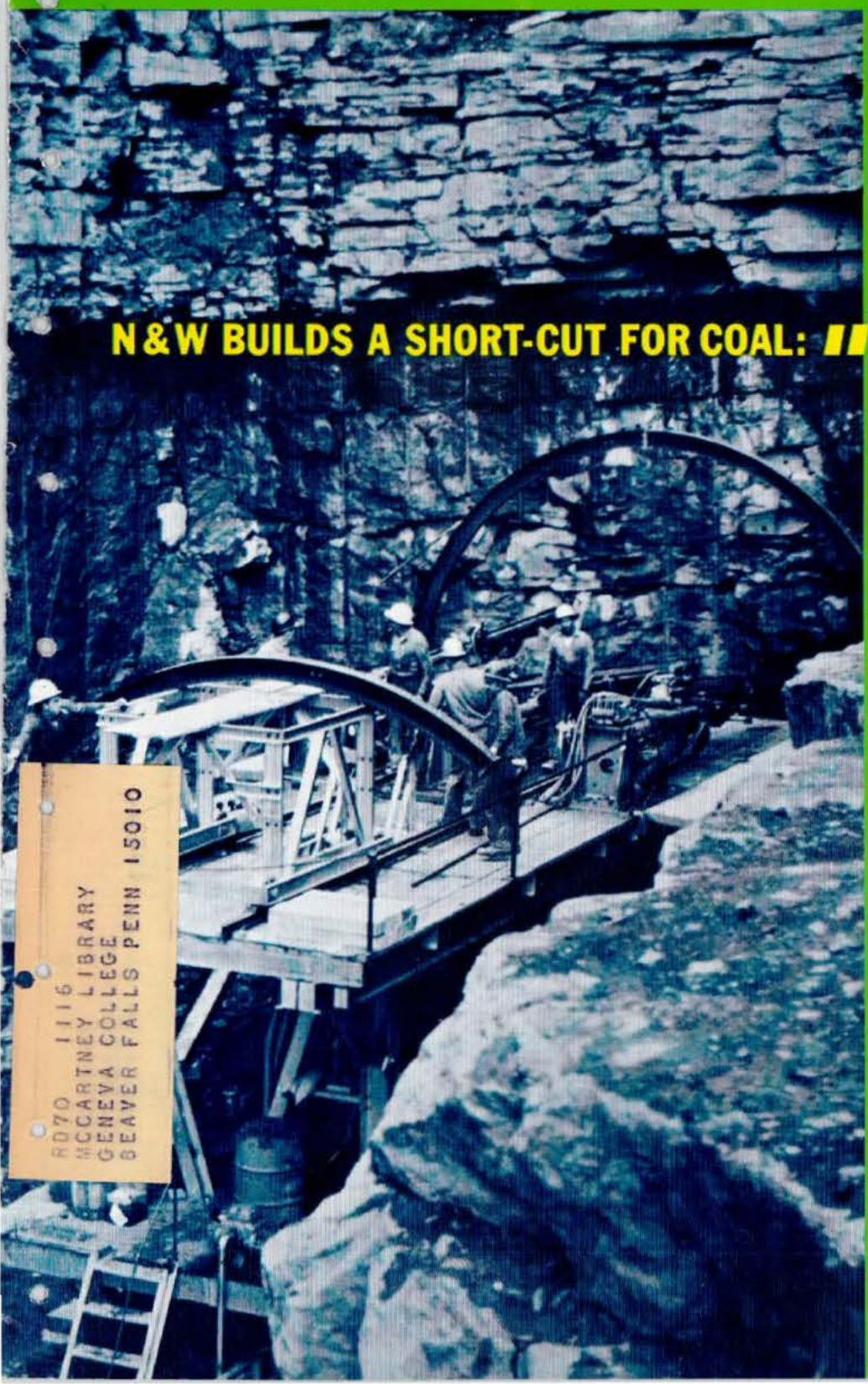
July 14, 1969

RAILWAY AGE

THE TRANSPORTATION WEEKLY



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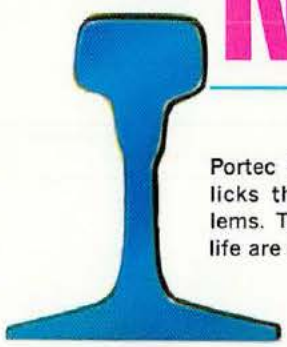

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THIS AGREEMENT is between THE TIMKEN ROLLER BEARING COMPANY (hereinafter called the "Company") and _____ (hereinafter called the "Customer"), and is made effective _____ 19___.

In consideration of the purchase by the Customer, on or after the effective date of this Agreement, of Timken® "AP" bearings, for use on railroad freight car applications, the Company hereby agrees as follows:

1. On any Timken "AP" bearing assembly purchased by the Customer during the term of this Agreement for use on freight car applications, the Company will replace or repair, free of charge other than any applicable inspection or service charge otherwise payable and Customer's portion of transportation, any of the parts specified in paragraph 5 below which, within 84 months of the original date of manufacture etched or stamped on the bearing, are found to be in such condition as to require replacement or repair to comply with the standards set forth in the Roller Bearing Manual of the Association of American Railroads as of January 1, 1969. If cup or cone surfaces show evidence of Brinell or fatigue due to normal wear or loading, to the extent that they are not suitable for continued service under standards set forth in the Roller Bearing Manual, the inspection charge otherwise payable will also be waived. If the Roller Bearing Manual should require, or the Customer should specify, that certain parts of the bearing assembly be replaced when the bearing is reassembled, even though such parts are in good condition, the Customer will be charged for the replacement of such parts.
2. The provisions of paragraph 1 above shall also apply, subject only to the 84 months' limitation, to any Timken "AP" bearings purchased by the Customer prior to the effective date of this Agreement.
3. To qualify for replacement of parts under this Agreement, the following requirements must be met, to the best of the knowledge and belief of the Customer and to the satisfaction of the Company:
   a. The condition requiring replacement must be attributable to the quality of material or workmanship in the manufacture of the bearing, and must not be due to damage from derailment, fire, immersion in or exposure to water.
   b. The complete bearing assembly (less axle end cap assembly) including all parts as removed from the axle for inspection must be forwarded to the Company, f.o.b. Columbus, Ohio, fully assembled, and with suitable packaging and/or blocking to prevent damage in shipment and handling, within 84 months of the original date of manufacture, as specified above, with identification of the Customer by or for whom the bearing is being forwarded.
   c. The bearing assembly must have been in use on a freight car operated and maintained in accordance with loading and other rules and standards of the Association of American Railroads for cars in interchange service.
   d. There must not have been any modifications or alterations of the bearing assembly, unless authorized in writing by the Company, nor any improper repairs or any substitution in the bearing assembly of bearing components made by another manufacturer.
4. Following inspection and repair or replacement of parts in accordance with this Agreement, the complete bearing assembly (less axle end cap assembly) will be returned by the Company to the Customer, f.o.b. Columbus, Ohio, subject to such freight allowances as the Company may from time to time establish applicable to all customers of the same class.
5. The bearing parts which are covered by this Parts Replacement Agreement are the cones, cup, cone spacer, seals, seal wear rings, backing rings and vent fittings. Other parts of the bearing assembly - axle end cap, cap screws, locking plate and lubricant fitting - are covered by the warranty referred to in paragraph 6 below.
6. This Parts Replacement Agreement supplements the warranty set forth in the "Conditions of Acknowledgment and Acceptance of your Purchase Order," under which the bearings were originally sold by the Company to the Customer.
7. Except as provided in paragraph 3d above, this Parts Replacement Agreement will apply where the condition of parts requiring replacement or repair has been found upon inspection either by the Company, or by the Customer or any other person for the Customer prior to the forwarding of the complete bearing assembly to the Company in accordance with paragraph 3b above.
8. In the event of any dispute concerning the qualification of a bearing for replacement of parts under this Agreement, the necessity for replacement or repair of particular parts, or any other question concerning the application of this Agreement, the decision of the Company will be final.
9. This Agreement is for a term of _____ months from and after the effective date, and may be extended for successive periods of twelve (12) months by notice in writing from the Company to the Customer. Following the termination of this Agreement, any bearing assembly to which this Agreement became applicable during its initial term or any extension will continue to be eligible for replacement of parts in accordance with the provisions hereof.

IN WITNESS WHEREOF, the Company has executed and delivered this Agreement to the Customer as of the effective date specified above.

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Railroad Division
The Timken Roller Bearing Company

By _____
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TAPERED ROLLER BEARINGS

Circle 4 on coupon page 29

RAILWAY AGE

July 14, 1969 • Vol. 167, No. 2

THIS WEEK

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. . . AND COMING NEXT WEEK

Tomorrow's Railroads: Super-railroads need financing. The July 21 issue of Railway Age will contain the 7th section of a 12-part Golden Spike Centennial Year series. This section seeks to indicate the problems behind such questions as (1) Where do railroads get the sustained high level of earnings they require? (2) What hope does diversification offer for transport, as opposed to over-all corporate well-being?

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SHORT AND SIGNIFICANT

Britain may finance part of Edmonton transit

The second and most expensive leg of Edmonton, Canada's proposed rapid transit system (estimated at $30 million if it goes underground) may be financed by the British government. Under the proposal, a British consortium would be paid in pounds sterling to provide for the entire project. The city would then repay the British government in dollars, at low-interest rates on long-term financing. The British, Edmonton officials noted, have concluded a similar arrangement in Turkey. Interest rates on that deal are 5% a year, with nothing to pay for 4 years.

Youngstown Steel Door to acquire Thrall Car

An agreement has been reached in principle whereby Youngstown Steel Door Co. will acquire all outstanding stock of Thrall Car Manufacturing Co. in exchange for Youngstown common stock. The agreement is subject to approval by directors and stockholders of both companies. Thrall shareholders would receive a total of 1,052,954 Youngstown common shares.

DOT announces $92,000-study on Friendship link

Should there be a spur from Penn Central's Baltimore-Washington line to Friendship International Airport between the cities? Or should there just be a main-line siding, with bus transfer to the terminal (two miles)? Transportation Secretary John A. Volpe last week announced that DOT (through the Office of High Speed Ground Transportation, Federal Railroad Administration) will spend $92,874 to determine the operational and engineering feasibility of each alternative. Gibbs and Hill will make the study.

Rail-Trailer expects 100% earnings rise

Rail-Trailer Co. expects to report a 100% increase in earnings for the six months ended June 30, President Richard A. Heise announced last week. "Earnings should reach approximately 28 cents per share in the first half of this year, as compared with 14 cents per share in the same period last year," he said. Results for the full year should also show continued improvement over a year ago, Heise indicated. He said Rail-Trailer has reached an agreement in principle to acquire a leasing company for an undisclosed amount of Rail-Trailer stock. The company to be acquired has assets costing about $1.8 million and specializes in finance leasing of transportation equipment. The acquisition is subject to approval by Rail-Trailer directors, definitive agreement and a favorable tax ruling.

New railway to Pacific urged in Canada

In a recent speech in Kingston, John Diefenbaker, former Canadian Prime Minister, stated that another rail line should be built through the Rockies as a capital expenditure by the Canadian government. "It is now obvious that Canada cannot hope to take full advantage of the economic opportunities on the Pacific unless the present potential for rail transportation is at least quadrupled," Diefenbaker said.

Union Pacific earnings up in first half

Union Pacific had consolidated earnings of $45.6 million in this year's first half (on the ICC-reporting basis), an increase of 1.6% over the comparable 1968 figure. Allowing for $9 million in deferred taxes, UP's first-half net was $36.6 million, a 2% increase over 1968. The carrier's freight revenues during the period climbed to $288 million, an increase of $22 million over the 1968 period, but this was partially offset by several factors, including "the continuing inflationary impact of rising wage costs and material prices." Meanwhile, the Union Pacific Corporation announced that holders of over 91% of Union Pacific Railroad Company preferred stock and over 94% of common stock, had accepted its exchange offer as of June 30. The offer was declared effective June 17.

MONDAY MORNING REPORT

BIGGER TRUCKS—"FOR SAFETY"

At a time when rails are getting the heat from Capitol Hill on the safety problem, it is interesting that the trucking industry seems to be basing its latest push for Hill favor on that very issue. American Trucking Associations last week launched its 91st Congress campaign for bigger truck sizes and weights. The theme of the testimony by William A. Bresnahan, ATA director, was basically that larger trucks mean greater safety for highway users.

THE SPECIFICS

The truck bill is sponsored by Reps. John C. Kluczynski (D.-Ill.) and Robert V. Denney (R.-Neb.). It would allow (not force) states to raise single-axle weight from nine to 10 tons; tandem-axle weight from 16 to 17 tons; gross weight from 36.5 tons to 46.5, with a "formula designed to protect bridges based on the number of axles and the distance between axle groups." That means width limits would go from 8 to 8½ feet, and length limits from none to 70 feet.

LENGTH LIMIT IS KEY ADDITION

In the ATA proposal to the previous Congress, there was no length prescription. That omission stirred up a lot of criticism, Bresnahan says. It's included this time with the claim that five extra feet (27 states prescribe 65 feet) will give more room, without more stress on roads and bridges, and make possible safer units—"according to outstanding automotive engineers." But extra width will help safety, too, Bresnahan says. A wider truck body lets tires be spaced better for cooler running, provides enough room around tires for dual chains and adequate springs, permits stronger brakes on an adequate frame, and improves truck stability by increasing the lateral spacing of the springs. Longer and heavier trucks than those covered in the bill have run for more than 10 years on some highways "with outstanding records for performance and safety," Bresnahan says.

OPPONENTS ARE STILL AROUND

Not everybody agrees that bigger trucks mean safety. The big-truck bill died in the last Congress after being reported out by the House Committee on Public Works. The safety issue was successfully manipulated by opponents such as the American Automobile Association, the National League of Cities, and Rep. Fred Schwengel (R.-Iowa). These are among this year's witnesses, too. The railroads? They did not testify before the 90th Congress on the truck bill. They won't appear as official, testifying witnesses before the 91st, either.

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Says the Chief Engineer of one western line: "Wherever we change joint insulation more than once a year, we've saved by switching to 3M Insulated Rail Joints." Other roads that have changed 100% to 3M joints, cite dependable performance and overall cost savings as their reasons.

These examples are typical. And over 60 roads can't be wrong. For full details write: Reinforced Plastics, 3M Company, 3M Center, St. Paul, MN 55101, Dept. ISK-79.

that's why major roads have switched to 3M BRAND insulated rail joints!

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Circle 7 on coupon page 29

Aerospace firm wins order for 250 BART cars

The biggest current order for rail passenger cars will be built by an aerospace equipment manufacturer—and in all probability will be delivered not by railroad, but by highway trucks.

The Rohr Corp. of Chula Vista, Calif., has signed a $66,708,031 contract with San Francisco's Bay Area Rapid Transit system for 250 cars—edging out competitive bids by two established carbuilders, Pullman-Standard and General Steel Industries. Rohr's per-car bid was $1,650 less than Pullman-Standard's.

The finished cars are likely to arrive by motor carrier because BART's gauge is a non-standard 5 ft, 6 in.

Rohr officials told Railway Age last week that a new 350-x-400 ft building is under construction at Chula Vista to house production and assembly facilities. Plans call for delivery of the first of 10 prototype cars in July 1970; revenue service is to start in August 1971 with 60 cars; and the remainder of the initial 250 car order is to be completed one year after that.

Rohr says the "systems approach" will be used in production of the cars. This simply means, says Keith Tanplinger, Rohr's vice president—industrial products group, that "a whole lot of common horse sense will be mixed in with the most modern and advanced technology available." Rohr engineers say they're confident they can construct the cars without having one rivet exposed.

WEEK AT A GLANCE

Volpe states support for intermodalism

Intermodal transportation companies will emerge in the U.S. in the "next few years," Transportation Secretary John A. Volpe said last week. "I state categorically that this development is necessary and inevitable and nothing to be afraid of," he said. Leaders in the intermodal movement will perform a great public service and improve their earnings, too, the Secretary said in Detroit at a ceremony marking the tenth anniversary of the St. Lawrence Seaway Development Corp. There will be a revolution in the way freight is handed, Volpe said, as the emphasis shifts to intermodal planning and improvement of the "intermodal interface." Right now, the U.S. has at best a network of sometimes compatible but often incompatible modes that have made frustration "a way of life with many traffic managers."

ACF Conditionaire car comes through O.K.

ACF Industries' Center Flow Conditionaire car proved itself out in a recent shipment of oranges from Dundee, Fla. to Medford, Mass. After traveling through ambient temperatures as high as 85 degrees, the oranges arrived 8 days later at the pre-set temperature of 38 degrees.

Sandy Pastan, plant manager of the Triple A Packing Corp., which received the shipment, and who is shown at the right inspecting the unloaded oranges said, "The temperature control system on the Conditionaire car is the best of any I've seen. And the car has a payload of more than three times that of bulk-shipment systems using trailers."

The steel exterior of the Conditionaire car is coated with polyurethane foam, and it has been found through numerous shipments that the interior temperatures are kept to a plus or minus 3 degrees anywhere in the car regardless of ambient temperatures. A. T. Kearny and Company, Inc., international transportation and physical distribution consultants, maintain that the car could save more than $100 million a year in packaging and handling by transporting only 60% of the volume of just nine major perishables.

GUS WELTY

LINES ON LABOR

BROTHERHOOD PEOPLE, ops as well as non-ops, have a legitimate and quite proper interest in railroad safety. Their interest is no less than equal to that of management, or of the public. But problems arise when unions try to equate safety with employment levels. There is *some* connection, to be sure. But there is not the direct-ratio kind of connection which the organizations sometimes like to make.

THE SITUATION in the M/W field may be a good one to consider. The Brotherhood of Maintenance of Way Employes is justifiably concerned with attrition in the membership ranks. It is a fact that railroads today employ fewer M/W people. It is not a fact that maintenance necessarily suffers. Machines *do* do a better job and a faster one than manual labor can do. Machines, in a real sense, have made possible a higher level of property maintenance—because (1) at the going rate of pay, no railroad could afford to employ the old army of M/W workers, and (2) even if the army could be afforded, many railroads would find it impossible to locate and hire the sheer volume of bodies which would be required.

MUCH THE SAME picture takes shape on the operating side. Some assignments, for safety or workload or other reasons *do* demand more manpower than others. But it has yet to be proved—union assertions to the contrary—that safety improves as manning levels increase, or vice versa.

SAFETY ARGUMENTS, this year as in the past, have generated a lot more heat than light. Safety arguments have given publicity to a lot of people. Safety *arguments* have not produced safer railroads, and they're not likely to. Those who say that safety can't be legislated aren't exactly right—safety can, indeed, be legislated. *Effective* safety is the thing that defies, and will continue to defy, the heavyhand of the bill-drafter.

ONE BASIC NEED, simply, is for rail management and rail labor to reach some kind of unity in going forward to do what both want to do—which is to run a better (including safer) operation. This need won't be met easily, by either management or labor. It demands, in all things, an approach that may not be within the practicable capability of either side. But if this kind of approach really won't work, it would be a tragedy for both sides (as well as for the public). And as for the job aspect which bothers the brotherhoods, rail management, as much as rail labor, wants to create good jobs. One fact should be kept in mind: Good jobs, like effective safety, can't really be legislated.

Rails oppose bill to cut working hours

Labor improvements like reduced hours may be desirable, but the final consideration as far as railroads are concerned is the drain on the industry's independent income. And that consideration makes it imperative for the industry to oppose legislation that would cut the maximum working day from 16 to 12 hours, Thomas M. Goodfellow, AAR president, said last week.

"Improvements, reforms, better pay, reduced hours of work—all of these and many more always have an attractive sound. But wherever they entail heavy costs, as in the present instance, and where the industry concerned has no financial recourse except its own resources and those it can attract from investors on tolerable terms, the costs simply must be considered," Goodfellow told the House Committee on Interstate and Foreign Commerce.

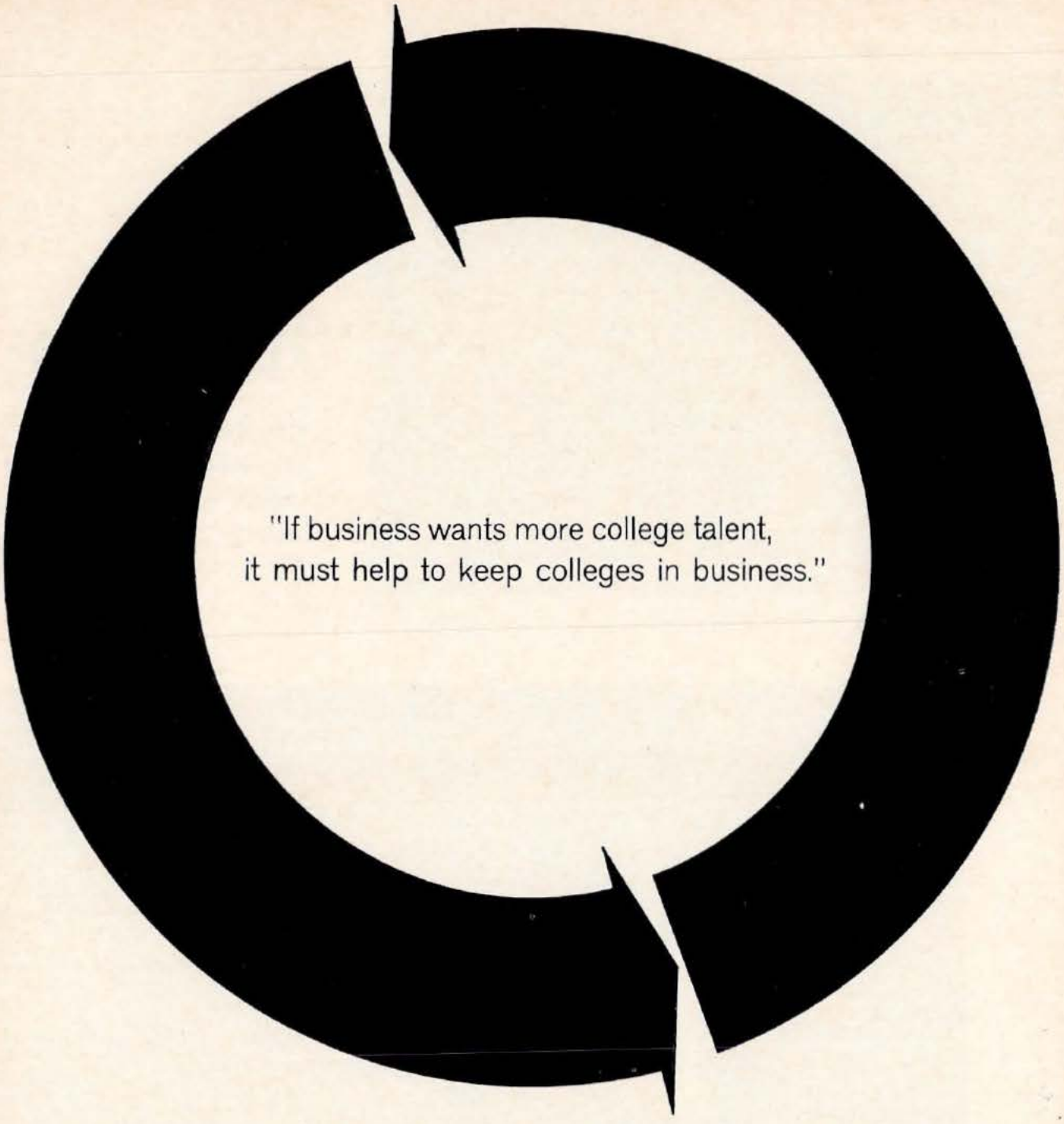
The AAR president outlined the industry's "pangs of capital starvation"—low rate of return on investment, high capital improvement outlays, heavy borrowing with rising interest, and growing wage demands—and said the industry has no room left for unwarranted increases in operating costs.

"In these difficult circumstances, to add to already severe inflationary pressures by imposing costly restraints on hours of service or railroad operating employees would clearly be contrary not only to the interest of the railroads but to the national interest as well," Goodfellow said at a Committee hearing.

It must be remembered, he added, that rail competitors have the benefit of public funds. And if hours of service restraints were proposed for these competitors, the financial blow "would no doubt be covered by government aid in one form or another."

The House Committee called the hearings on an hours-of-service bill introduced by its chairman, Harley O. Staggers (D.-W. Va.). Many similar proposals have been introduced in the 91st Congress. There were many in the 90th Congress, too, but no hearings were held. The last hearings on this issue were before the Senate Commerce Committee in 1966.

At last week's hearings, Committee members expressed displeasure that neither labor nor management representatives could produce statistics to support their testimony.



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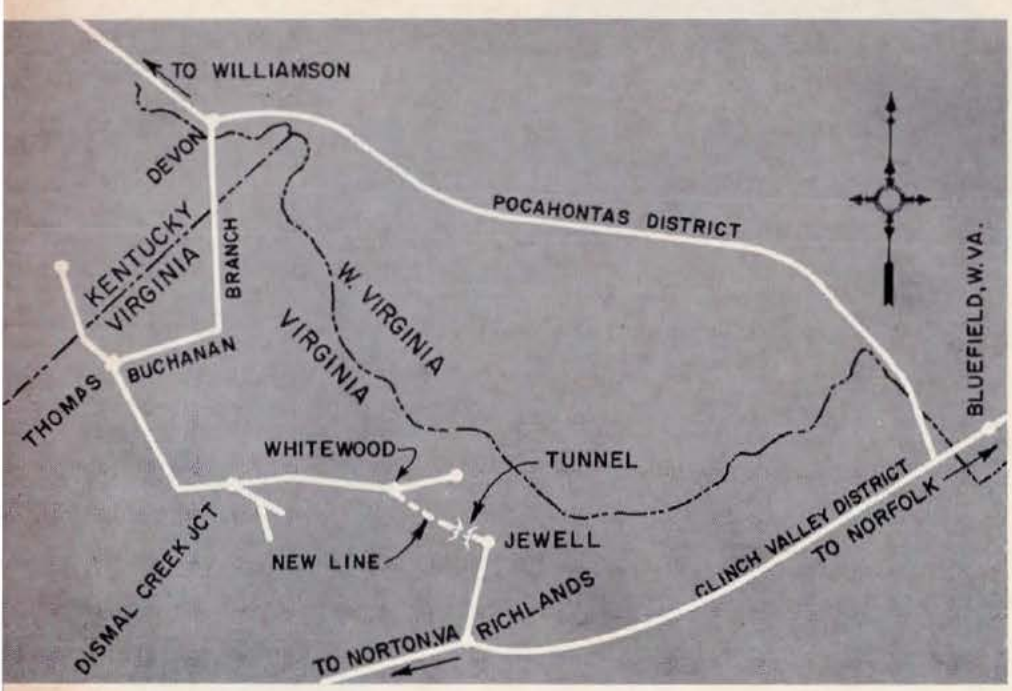


MAP SHOWS how new line, by closing a gap, created a new and shorter route.

"It was our

New Norfolk & Western connection, built through rugged country, will produce important benefits in the hauling of coal.

toughest new-line job"

Coal originating in southwestern Virginia on the Norfolk & Western now has 46 fewer miles to move in reaching eastern destinations.

This reduction was accomplished through the construction of an 8.4-mile connecting line through extremely rugged country. Along with heavy grading, the project required the construction of a tunnel 3,100 feet long. Total cost came to more than $7 million for the entire project.

Says B. E. Crumpler, N&W's assistant chief engineer-construction: "This was the toughest new-line construction job we ever tackled."

But N&W figured the savings in time and money to be derived from the shorter movement, as well as other benefits, would more than justify the cost of the new line. In 1965 121,200 cars of eastbound coal originated on N&W lines in the coal fields of southwestern Virginia. Projected traffic for 1976 is 218,400 cars.

● **Existing arrangement.** The situation that led to the decision to build

BLASTING THROUGH

Grading work for new line included large amount of excavation in shale and sandstone, which required blasting.

TUNNEL IS 3,100 FEET LONG

The tunnel was driven mostly in medium-grade shale comglomerate. Here, drilling work is just getting started.

the new line involved this arrangement of existing lines:

The Buchanan Branch, which serves the largest coal-producing territory on the N&W, connects with the main line of the Pocahontas District at Devon, W. Va. This branch (see map) extends southward into the coal fields, joining with a line called the Dismal Creek Branch. All eastbound coal originating on these lines moves northward to Devon and thence eastward to and through Bluefield, W. Va. The average movement of this coal in the Upper Buchanan Field is 117 miles.

Across the mountains from the southern extremity of the Dismal Creek Branch is another line called the Big Creek Branch, which reaches northward from a connection with the main line of the Clinch Valley District at Richlands, Va.

By constructing a line to span the gap from Whitewood, Va., on the Dismal Creek Branch to Jewell on the Big Creek Branch, N&W saw that it would be possible for the eastbound coal from the Upper Buchanan Coal Field to move over the Clinch Valley District to Bluefield, an average distance of 71 miles. N&W also saw that the new connection, by reducing congestion on the movement of westbound coal from the Buchanan Branch, would result in better service on coal moving in that direction.

● **Heavy grades, sharp curvature.** As was to be expected, the rugged terrain through which the connecting line was projected involved heavy grades and sharp curvature in addition to the construction of the tunnel which extends through Smith Ridge mountain. From Whitewood to the tunnel, the direction of loaded movement, the line ascends on a 2.0% curvature-compensated grade. Through the tunnel the grade continues to ascend on a grade of 1.5%. From the east portal there is a descending grade of 2.2% to the junction with the Big Creek Branch at Jewell. Maximum curvature is 12 degrees. Included in the alignment is a horseshoe curve 1,900 feet long.

Even with the relatively steep grades and sharp curvature, grading was heavy. Two of the cuts are about 150 feet deep and the largest fill is 196 feet high on the center line, requiring about 900,000 cubic yards of material. Several other fills are substantially more than 100 feet high. Grading came to about three million cubic yards. Most of the grading was carried out in shale and sandstone, requiring that the material be loosened by blasting, with pre-splitting performed wherever possible. Rock cuts were built with vertical side slopes and intermediate benches 20 feet wide.

SOME CUTS WERE 150 FEET DEEP

Even with relatively steep grades and sharp curvature, grading on new line was heavy. Two of the cuts are about 150 feet deep and the largest fill was 196 feet high.

Longest bridge on the line is a steel viaduct 488 feet long. There is another but smaller (135 feet long) concrete and steel bridge; all the other waterway openings are pipe and box culverts. Indicative of the extreme heights of the fills penetrated by some of the culverts is the fact that one of the box culverts has a length of 570 feet. Contractor for the grading and masonry work was the Codell Construction Co., with the steel viaduct being erected by Bethlehem Steel Corp.

The tunnel was constructed mainly in material N&W engineers describe as a medium-grade shale conglomerate, with some coal being encountered. In drilling the tunnel the contractor, the Wiley N. Jackson Co., used a jumbo to provide platforms for the drilling work.

● **Water problem in tunnel.** Some mined-out coal seams above the tunnel caused a water problem, especially during the placing of the concrete lining. During the concreting work in the wettest part of the tunnel, polyethylene sheets were placed overhead to deflect the water around the concreting operations. Polyethylene sheets were also placed in the bed of a creek above the tunnel to provide a temporary seal against the seepage of water into the tunnel from that source.

● **Heavy-duty track.** Track for the new line is of heavy-duty construction;

PLACING THE BALLAST

Dump truck, followed by crawler tractor pushing a spreader box, places the ballast on the subgrade.

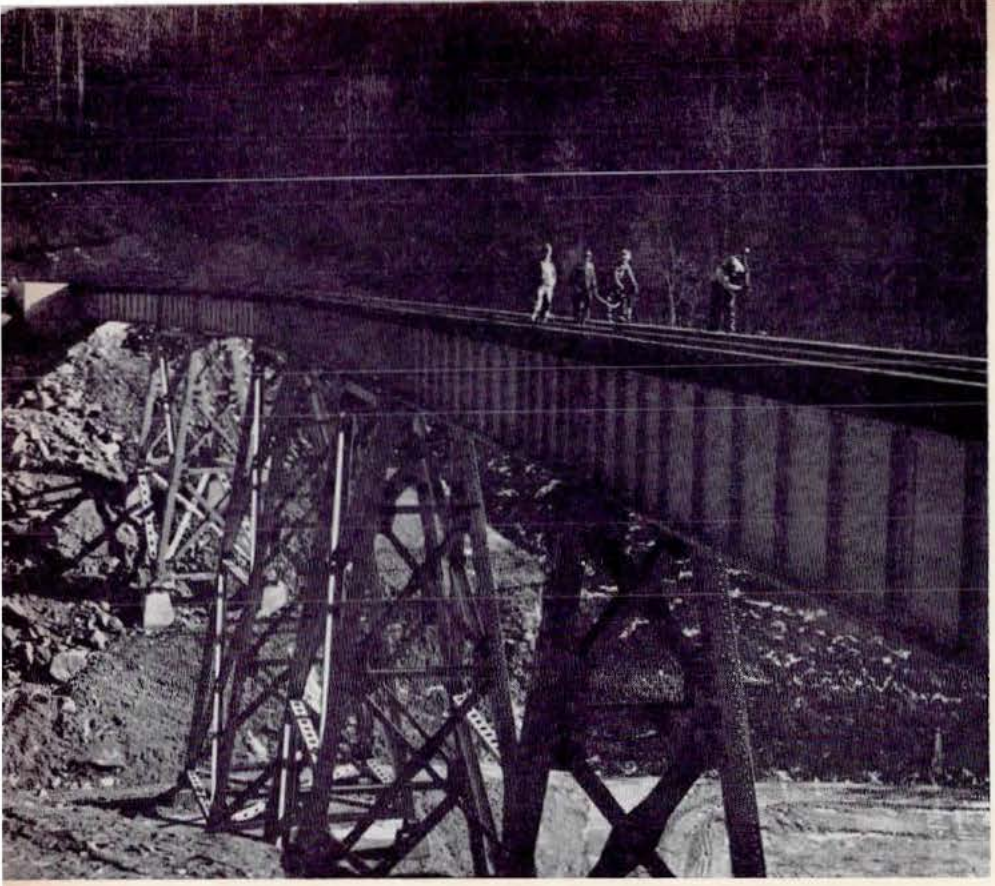
SHAPING THE BALLAST

Newly distributed ballast is here being shaped into windrows on each side of the roadbed by a patrol grader.

HOW THE NORFOLK & WESTERN BUILT ITS NEW LINE

PLACING THE RAIL

Rail strings were pulled along the track by a crawler tractor and then lifted into position on the ties by a Speed Swing.



LARGEST BRIDGE

This steel viaduct, 488 feet long, is the largest bridge on the new N&W line. Most of the waterway openings are pipe or box culverts.

secondhand 136-pound rail was used, which was welded into 1,320-foot lengths for use on tangents and curves through 6 degrees. For installation on curves sharper than 6 degrees the rail was welded into 75-foot lengths. Crossties are creosoted timber placed 24 to the 39-foot rail length. Double-shoulder tie plates are used, and there are four spikes per plate, two line spikes and two hold-down spikes. Crushed stone ballast is used which is placed to a depth of 15 inches under the ties.

The procedure used in building the track was dictated to a large extent by the fact that track construction work would be going on during the winter months. To avoid working under the muddy conditions that doubtless would prevail if the ties were trucked out and placed directly on the new subgrade, the usual practice, the road elected first to lay down a 4-inch layer of crusher-run stone, 16 feet wide, on the roadbed. This material, say N&W engineers, provided an impervious layer and served as a roadway in distributing the track materials.

The N&W's Roadway Material Yard at Roanoke, Va., figured importantly in the construction of the line. The rail butt-welding was done at the material yard by the oxy-acetylene pressure process. The welded rails were hauled to the railhead in a two-tier train capable of transporting three track-miles of rail per train.

● **Ties were pre-plated.** Crossties were pre-plated at the material yard in a setup which involved the use of a Nordberg Hydra-Spiker for driving two hold-down spikes in each tie plate. The ties were then banded at the material yard in bundles of 24 ties each for shipment to the job.

How the rails were placed

Construction of the track was progressed from the railhead at Whitewood. When considering the method to be used in placing the rails, N&W engineers gave thought to the practice of pulling the long rails off the rail train directly onto the ties, using a straddle crane and rollers to facilitate the movement. However, this idea was discarded because the heavy curvature would render it impractical. From the railhead the long rails were dragged by a crawler tractor to a position alongside the roadbed about opposite their final location and later placed on the pre-plated crossties.

● **How track was built.** Before the ties were placed, regular ballast was hauled in dump trucks onto the roadbed where it was dumped and spread with the aid of a crawler tractor equipped with a spreader box. A patrol grader was used to work the ballast into windrows along both sides of the track. The ties were then unloaded onto the roadbed from flatbed trucks.

A Speed Swing was used to lift the long rails into position on the ties, and at this time the rails were spiked at every tenth tie on tangents and closer on curves. A Kershaw Ballast Regulator pulled the windrowed ballast lightly around the ends of the ties. At the time of being placed on the ties, the rails were joined temporarily by bolted joint bars, but these were later removed to allow the rail to adjust and to be joined by Thermit welds.

The organization used in completing the track construction work included an RMC Auto-Spiker for setting and driving the spikes, an RMC tie spacer, two Racine Anchor-Fast anchor applicators, a Ballast Regulator that finished the work of pulling the ballast into the track, an RMC tamper with automatic raising beam, and a Nordberg Trak-liner with Line Indicator. When the work of raising and lining the track had been completed, the Ballast Regulator made a final pass over the track. In this organization only about six laborers were needed in addition to the machine operators.

All material handling involved in the track work was performed under contract by the Purcell Contracting Co., but railroad forces placed the rails in position and carried out the remainder of the track construction work.

● **Big Creek line upgraded.** The project involved extensive rehabilitation work on the existing seven-mile-long Big Creek line between Jewell and the junction with the main line of the Clinch Valley District at Richlands. This work included heavy tie renewals, re-ballasting and replacement of all pile trestles with concrete-and-steel bridges.

All phases of the work involved in building the new line have been under the general supervision of Crumpler, reporting to E. Q. Johnson, chief engineer. J. T. Hiner, assistant chief engineer-maintenance, was in general charge of the track work.

Considerable motive power will be used in moving loaded coal trains east over the new line. In this operation 10 units, five in the rear and five at the head end, will be utilized to move trains of 85 to 90 cars up the 2% grade from Whitewood to Jewell where the cars will be set out on a side track. The 10 units will then go back to Whitewood for another cut of 85 to 90 cars. At Jewell the two cuts of cars, totalling 180 to 185 cars, will be combined into a single train which will be hauled by the same 10 locomotives to Bluefield ■

Unless railroads grasp some of this space-age technology, we are done as an industry.
A. E. Perlman

The railroad industry has attracted quality people for its top research job.
L. S. Crane

There has been a tremendous amount of cross work between the AREA and ASTM. T. E. Marshall, Jr.

Will AAR alter the roles of its research and testing?

Alfred E. Perlman, Penn Central president, has received the 1969 Award to Executives of the American Society for Testing and Materials. The award was presented at the society's recent annual meeting in Atlantic City, N.J. L. Stanley Crane, the Southern's vice president-engineering and research, was elected president of the society at the meeting. Perlman, Crane and ASTM Executive Secretary Thomas A. Marshall, Jr., were interviewed in Atlantic City by Railway Age Mechanical Editor Fred Houser. The transcript of the interview follows:

Q. What is your impression as an outsider of the railroads' research and testing efforts?

Marshall: I haven't been close enough to the industry, but I do know that there has been a tremendous amount of cross work between AREA and ASTM. From an ASTM standpoint I think it should be recognized that while railroads have a central laboratory and do testing, ASTM has no laboratory and does no testing.

Q. Mr. Perlman, much of the railroads' so-called research effort individually and industry-wide is testing of materials and acceptance of products. With a few exceptions, like your Collinwood laboratory at Cleveland, there has probably been very little pure research in the railroad field. Can railroads profitably back pure research?

Perlman: I think applied research is much more necessary than pure research. I remember when a GM research man who was with the Atomic Energy Commission came out to Denver to see me when I was with the Rio Grande. He said that the trouble in nuclear physics had been that they had a great deal of pure research but did not work at applying it for the good of the public. It was very difficult to get people who could take pure research and apply it for the general good. GM's Kettering was a great man for that concept. Usually there are men who are research scientists who do the far-out research and there are men who understand the needs of the people. Actually, I would say that the general public would be a lot better off if we spent our money in applied research rather than on this way-out type of research; this is what Collinwood lab attempts to do.

Now, testing is necessary along with that to make sure you know what your problems are. If a rail fails or a wheel cracks or a concrete bridge goes bad, you will be way out in the stratosphere in what you study unless you have facilities to know what your problems are.

We feel that our money can best go for testing and applied research. I feel that the AAR goes too far in testing and not for enough in applied research. On PC we try to do both, and actually this has been very helpful to us. Just a month and a half ago our Cleveland Laboratory turned in a $70,000 dividend. They take pure research, apply it to things the railroads can use and patent the result. Their water cooler is an example. We had a tremendous amount of trouble on locomotives with the freon water cooler because the deck shimmies all the time. Every time a locomotive came in, the water cooler had to be gone over. Now in a little piece of brass as big as the end of my finger they drill a little rifling and separate the hot molecules from the cold molecules in a compressed air stream from the train line to produce a water cooler that has no moving parts. The air comes out one end for the water cooler and comes out the other end to heat the engineman's feet in the wintertime. This is the kind of thing that is meaningful, even though it is just a small item.

The lab is doing quite a few other things, some of which are really way-out. They've got a freight-car truck moving on rails with about 10 volts running along the center of the track. Their deadman control with sonic rays functions if an engineman doesn't move a finger in 30 seconds. For $35,000 that lab equipped a Budd RDC car to go 183 mph. Compare that with all the money in this government Northeast Corridor research to try to get up to 160 mph.

These are all things that people can do who understand basic research and the needs of your own company. It takes someone with the mentality of a

AN ENTIRELY DIFFERENT CONCEPT OF WHAT IS NEEDED

Kettering, and there aren't too many such people. You could have all the basic research in the world and if people didn't set their minds to how you would use it for the public good, it wouldn't be done.

Q. Could some of this specifying and testing possibly be shifted to an ASTM basis to give the railroads an opportunity to devote more of their facilities—mental and physical—to applied research?

Crane: AAR does do considerable in-house testing, and they do it primarily in the Mechanical Division area where there is necessity for certification of the products because they move in interchange. Mr. Perlman has been a little modest when you asked that research question, because as you know he has been doing something about getting AAR research back on a better basis. He happens to be chairman of the recently appointed AAR Ad Hoc Committee on Research, now engaged in restructuring the research organization of the AAR. The vice president-research retired and they are in the process of seeking a replacement. It is Mr. Perlman's objective that the new man have the background for real research rather than for the test function on which the operation has mainly set its sights.

I don't think anyone who is selected is going to be selected unless he is a true researcher in the real sense of the word, and I might say that we have a very fine list of candidates. I expressed some surprise that the railroad industry was able to attract some of the quality people who have expressed an interest in taking on this position, even though it is a tremendous challenge.

Q. Is this vice presidency going to be filled soon?

Crane: We hope it is going to be resolved in the next two to three months.

Perlman: This situation has a long history. The AAR was formed in 1934 and in that organization there was supposed to be a vice president of research. But there were certain policy matters that seemed to stymie that type of appointment. The Fletcher Committee in 1942, of which I was chairman of engineering and mechanical research, made a study of all forms of railroad operation. We recommended that the Research Center at Chicago be built so there would be a technical group interpret for the supply industry and for others interested, the needs of the railroads for equipment and materials. At that time there was a deep suspicion in industry circles about this whole thing, and the policy then was that we get a man who wouldn't go too far out, which we did.

I have been through the whole thing right from the start. I think the railroads and the supply people are changing—mostly because today it is a different kind of a supply industry with people even engaged in space work trying to get into the railroad game. It is no longer a narrow thing. Old timers would say: "I have a patent on a product. Some research might disclose a better way of doing it." While there have been many things which have put the brakes on AAR research, I think both the supply industry and the rail industry today have an entirely different concept of what is needed.

Q. It still remains to be implemented.

Crane: It is just about now moving

(Continued on page 32)

Award is presented to Perlman (right) by 1969 ASTM President H. N. Bogart.

Federal funds to span the gap?

In his acceptance of the 1969 Award to Executives of the American Society for Testing and Materials, Penn Central President Alfred E. Perlman had much to say about the current status of railway research.

"ASTM is dedicated to technological development and you are aware of how important it is to keep abreast of developments on the rapidly expanding frontiers of science. The railroad members of your society are well aware that the technological lag in the railroad industry is a problem which far transcends the ability of any one group to remedy it.

"R&D expenditures by railroads amount to only a few million dollars annually, a miniscule amount compared with other industries. For many years our industry has not produced sufficient earnings to launch and sustain adequate research, yet we have been reluctant to go after Federal assistance. Instead, we have struggled along with insufficient privately financed programs that can never produce the results needed to put railroads on a par with other industries.

"Consider the billions poured into development of the C-5 military cargo airplane by the Department of Defense. The air industry currently is pressing the government for some $4 billion with which to develop a supersonic transport plane. With this kind of appropriation, the railroads could build high-speed lines and rail transit systems to serve cities like New York and Boston that would surpass Japan's New Tokaido Line. We could virtually eliminate dangerous congestion of airways and noxious air pollution that exists in the vicinity of metropolitan airports. And we would have money left over to develop new concepts in efficient, economical freight service.

"All too slowly it is dawning upon us that railroads individually or collectively are not able to sponsor research programs that will bridge the alarming gap that exists in our industry compared to the Federally financed programs for all other competitive forms of transportation. With the assistance of the new Department of Transportation we would then be able to formulate and to present our needs to the Federal government, constructively and aggressively.

"There is too little communication within the industry and between the industry and our suppliers regarding the various programs that are being carried on and those that should be undertaken. You can see that in how slowly we have developed high-speed trains. Our industry would do well to establish a clearing house to span this communications gap and make more effective our individual efforts."

"There is no organization better qualified to set up standards than the Association of American Railroads." Chairman C. A. Love

Safer and more reliable cars goal of AAR

Mechanical Division acts to meet new operating problems.

Increased safety and reliability for railroad rolling stock were the goals of virtually every action taken at the recent annual meeting of the AAR Mechanical Division. Tank cars came in for special attention. But attention was also directed at the shortcomings of other types of freight cars and of locomotives.

The meeting, coming as it did immediately after publication of the report of the Secretary of Transportation's Task Force on Railroad Safety (RA, July 7, p. 12), demonstrated the ability of the railroad industry to deal swiftly with many of its car design problems. Mechanical Division Chairman Carl A. Love, chief mechanical officer of the Louisville & Nashville, pointed out that while the recent "rash of derailments involving dangerous materials has speeded the drive for increased Federal regulation, there is no organization more qualified to set up standards of this nature than the Association of American Railroads.

"We are able, as an industry," he said, " to establish realistic regulations but as long as they are merely recommended and not mandatory, some railroads do not comply. If government regulations do come, they must be tempered as a result of consultation with the AAR so the industry will not be saddled with an unrealistic financial burden that would not improve the situation."

● **Inflated figure.** "The industry has established a good safety record in the areas of employee and passenger casualties," said R. R. Manion, vice president of AAR's Operations and Maintenance Department. "One factor that inflates railroad casualty figures is the problem of highway grade crossing accidents . . . Efforts to eliminate grade crossing accidents are only a part of the industry's program to improve safety. There is an awareness that more should be done to eliminate all causes of accidents. The problem now is to find the means."

Manion called for more precise information on the cause of each accident and stated that the shortage of capital does impede railroad efforts.

Manion cited creation of the new AAR Safety Division (RA, April 21, p. 26) as no mere "window dressing" and added that it "makes good business sense for the railroad industry to make improvements in safety. Fewer accidents mean fewer employee casualties, fewer equipment repairs, lower freight losses and greater reliability . . . Sometimes our procedures for coming up with solutions haven't been the best—they have been ponderous and unresponsive."

● **The real cause.** Mac E. Rogers, director of the Federal Railroad Administration's Bureau of Railroad Safety, urged that railroads cooperate in making a correct and accurate determination of the cause of each derailment, not allowing "lack of time or interest" to interfere. "If proper causes and more complete details are determined and fed to a computer," he explained, "some day the answer to proper preventive means will start to materialize."

He spoke of FRA's concern with derailments involving tank cars containing liquefied petroleum gas. He noted that tank cars containing nitrogen tetroxide, liquid hydrogen, chlorine or other hazardous commodities could cause tremendous losses of life and property in wrecks, adding that "we do not need to be educated by tragedy." Rogers drew attention to another tank car problem—fatigue in jumbo cars without center sills. He said such cars might be getting "tired bellies" evidenced by leaks, surface cracks or buckling of shells. "FRA has research money and we are planning on putting some of it to work in the next 18 months in an effort to get safer tank cars on your railroads," he concluded.

The tank car without the center sill came in for special attention from the Mechanical Division's Committee on Freight and Passenger Car Construction. Since 1957, almost 32,000 such cars have been built. There have been 39 failures of tank shells at the point where the stub sill's inner end is welded. All failures have been among the 12,475 non-pressure (under 75 psi) cars of 100-ton capacity having shell thickness of 7/16 or ½ in. Shells have either wrinkled or, in some cases, buckled completely. The Committee is working with tank car builders to develop modifications which will be based on static squeeze, impact, and vertical coupler loading tests.

● **Research activities.** The AAR Research Center is currently investigating the metallurgy of the shells of tank cars involved in explosions at Laurel, Miss. (RA, Feb. 3, p. 26) and Crete, Neb. (RA, Feb. 24, p. 7). R. Byrne, director of research, reported that consultants have been retained to determine if the metal in the shells of 15 jumbo cars carrying liquefied petroleum gas when derailed at Laurel "met requirements of current specifications and to study impact properties, high-and low-temperature properties, and the characteristics of tank car welds." This report for the Tank Car Committee is to be completed in July.

The rupture of an anyhdrous am-

MORE CRITICAL OF DESIGN AND WORKMANSHIP

monia tank car at Crete when it was struck in the derailment of a train on an adjacent track is being traced by the Research Center. Practically every piece of the tank was recovered and is being used to develop the fracture patterns.

● **Type F couplers.** To "improve the safety of tanks cars handling hazardous commodities in derailment situations," the General Committee of the Mechanical Division proposed that all such cars built after Jan. 1, 1970, be equipped with Type F interlocking couplers. Study of train accidents by the Tank Car Committee, it was reported, showed that tank cars moving in groups sustain punctures of tank heads when cars separate in the course of derailment.

Major tank car builders protested this requirement, explaining that it might be more prudent to extend the interlocking coupler requirement to all new freight cars. When an F coupler is mated with an E (non-interlocking) type, separation always means that the E coupler must raise out of engagement, putting it in position to strike the end of an adjacent car. The tight engagement of interlocking couplers, said the builders, might actually increase the number of cars which roll over in a derailment. The General Committee agreed to further consideration of the mandatory requirement before it is submited for letter ballot.

The growing use of span-bolster running gear for cars of over 100-ton capacity (RA, Feb. 24, p. 39) has caused the Car Construction Committee to undertake development of test criteria for this arrangement. "Cars having span bolsters have been operating with apparent success for many years," said the Committee. "However, they are usually operated singly and often under restricted conditions. Consequently, the Committee feels there is too little information with respect to operation of such equipment in large numbers and at the high train speeds encountered under today's operating conditions."

● **Outmoded cars.** The Mechanical Division is acting to discourage the restoration of outmoded cars so they will be continued in service after retirement by their original owners. "The problem of some firms purchasing worn-out cars and cars damaged in derailments, making minimum repairs, and then putting them back in service has become more prevalent," it was reported.

To counter this, a new mandatory requirement proposed for Interchange Rule 3 would require that cars over 20 years old, or those with inherent structural weaknesses or damage, would not be accepted for interchange service unless they qualify fully as rebuilt cars under AAR regulations.

With the steel wheel being pushed closer to its physical limits, the Committee on Wheels and Axles has devoted increasing attention to wheel design and metallurgy. The AAR Research Center has been working closely with the committee on investigations of wheel failures. The Center has reported that "exploding" types of wheel failures are found often to be associated with the presence of chromium and nickel.

"Scrap used in the manufacture of steel has increasing amounts of residual elements," it was reported. "Improperly heat-treated steels containing high percentages of residuals result in a much faster rate of thermal fatigue." Development of unexplained cracks in wheel flanges, it was reported, may result from "excessive pressure being developed in car retarding devices."

● **Design and workmanship.** H. M. Hoffmeister, vice president of Missouri Pacific's Purchases and Materials Management Department, warned that with the Federal government bearing down on safety, "we can expect individual railroads and the AAR to be more critical of design and material workmanship . . . We have continuing problems of poor quality workmanship in goods we buy and use. We are also concerned with suppliers' poor service and poor delivery . . . Cyclical buying continues to be a common problem. Our suppliers are either in feast or famine. When it is feast, workmanship suffers. On the MoPac we recognize this and try to balance our large purchases throughout the year."

Diesel shortcomings

Locomtive builders did not come off unscathed. The Committee on Locomotives and Locomotive Fuels and Lubricants asked for motive power less costly to maintain, more reliable, and easier to trouble-shoot. "The diesel-electric locomotive dominates almost by default," it was reported. "The gas-turbine-electric locomotive did threaten for a time but now approaches a complete phase out because of its voracious appetite for fuel, high cost of repairs, and unreliability of accessories . . . The straight electric locomotive becomes increasingly attractive, but continues to stand in the wings of the motive power stage waiting for the right combination of economic prerequisites to justify the large initial investment required for railroads to reap the obvious advantages of large-scale electrification. The diesel electric was able to displace the steam locomotive piece-meal. Not so with the straight electric—it must enter the scene with one grand sweep."

While the diesel-electric is tops and will continue so for some time, the Committee warned that "being tops in sales does not mean that it gives the performance that is desired and sorely needed by the railroads in their constant endeavor to cut operating costs."

● **Document the dilemma.** "It is readily apparent," the Committee continued, "that railroads do not document their locomotive problems with specific supporting data and do not pool their problems with other railroads. As a result, each railroad gets its information the 'hard way.'

"Lack of communication between user and builders is basically responsible for much of the high maintenance costs. Top management of the builders is often completely unaware of the operating problems associated with their locomotives."

In his address, AAR Vice President Manion paid tribute to the Mechanical Division for the many important jobs it is doing currently, citing particularly the work of a task force simplifying car-repair billing. "Aside from semi-annual updating," he explained, "there has been no complete evaluation of the Interchange Rules since their advent in the 1870s. With anything lasting that long without complete revision, rules are going to continue in existence long after they have been outdated, either by changing conditions or new technology."

● **New interchange regulations.** A ruled-by-rule, page-by-page appraisal has led to the decision for publication of two separate books of interchange regulations to be effective in August 1970. A field book, classified for clarity and group for easy reference, will contain those rules which apply to interchange of cars and matters pertaining to damaged and worn-out cars. A separate office book will cover pricing information and regulations encouraging data machine processing.

"Intangible results from this revamping should be numerous," predicted Manion. "There will be savings realized in management reporting of car maintenance costs, and information that has to be extracted by hand from today's billing should become readily available. These benefits are in addition to $12 million annually that can be saved in preparation of AAR billing repair cards and their subsequent handling." ■

Container obstacles are cited

It has been said that containerization is just around the corner—and always will be. What is holding up the container revolution? Eugene R. Birchler, vice president of CTI-Container Transportation International, pinpointed two stumbling blocks in a recent talk at Northeastern University.

One of these, said Birchler, has been "the industry failure to make standardization a reality." The result, he said, has been a failure to achieve inter-company container utilization.

Birchler cited inter-railroad use of freight cars as an example of the kind of flexibility container users should have.

"If you telephone the Boston & Albany Railroad and ask to have a box car positioned on your siding at 8 a.m. Monday morning, the chances are strong that the car will belong to a road other than the B&A," he pointed out. The same situation, in his view, should prevail in the assignment of containers.

● **Insurance problems.** Also holding up the growth of containerization, said Birchler, is the "obstructionism of the insurance industry."

"There is nothing a marine insurance man would rather talk about than how a container carried as deck cargo was swept overboard in a North Atlantic storm. The insurance people are exaggerating outrageously the losses from incidents of this kind."

Birchler cited instances in which containerization has reduced losses: "The American Export Isbrandtsen Line, which has carried many thousands of containers as deck cargo, reports that its losses . . . have been tiny."

The claims received by CTI, which operates a fleet of 30,000 containers have been "uniformly small" and "have never even involved an insurance company but were settled as carrier liability," said Birchler.

He said pilferage has been virtually eliminated by containerization. Birchler mentioned the concern expressed by Mayor Richard E. Daley over Chicago's $15-million-a-year pilferage problem and added, "If Mayor Daley wants to stop pilferage in Chicago, I suggest he take steps to put as much as possible of the consumer goods moving in and out of the port into containers." ■

LUTHER MILLER

AS THE EDITOR SEES IT

A NATIONAL NEWSPAPER of high repute, a few months back, published a scathing editorial on railroads which suggested that the federal government itself could do no worse a job running trains than present railway managers were doing. The shrill pitch of this purple journalism was so out of character for this paper that some railroad p.r. men undertook to find out what brought it about. Their unofficial finding was that the editor's commuter train had been late that day and he told his editorial writers, in effect, "Sic 'em."

NOW, ANOTHER PAPER, of similarly lofty repute, has mounted an attack on the railroads for being, of all things, unsafe passenger carriers. What brought this on, only God and the editor of the editorial page of The New York Times know. Maybe the editor had a bad day on the Long Island. In any event, an editorial which sets out to attack the LIRR (for declining "from the status of a fourth-rate public conveyance to that of a first-class public nuisance") goes on to make some sweeping accusations about the industry as a whole.

THE TIMES makes the following curious, shocking and irresponsible statement: "No further study is required to establish the fact that train trips are now less safe than air travel, and that they are getting more hazardous all the time." That simply is not true; and if the Times *had* bothered to make a further study, or had even troubled to consult its own excellent transportation reporting staff, the facts could easily have been ascertained.

THE FACTS ARE THESE (and we quote from an AAR report that was issued, coincidentally, the same day The Times colored its editorial page yellow) : "Americans traveling in passenger trains last year were 24 times as safe as they were in automobiles and three times as safe as they were in airplanes. Thirteen railroad passengers met accidental death in 1968, the same number as in 1967. The 1968 fatality rate was .10 per 100 million passenger miles, the usual yardstick for measuring safety. On the highways last year, more than 36,000 motorists were killed—a fatality rate of 2.4 per 100 million passenger miles. Scheduled domestic airlines reported a .30 fatality rate for 1968, when 258 died in crashes."

SOMEBODY IS WRONG. And it doesn't seem to be the AAR, which has done the "further study" which The Times didn't think necessary.

QUARTER-MILE LENGTHS of welded rail—80 miles will be required—are unloaded and placed on ties during construction.

PC's Columbus Yard quickly nearing finish

New yard will be one of the world's most modern, claims PC. Operating efficiencies may eventually close smaller yards.

WELDED RAIL is released by workmen during track construction.

With dirt flying and the rumble of construction machinery echoing across the countryside, Penn Central's new $26-million automated freight yard is taking shape northwest of Columbus, Ohio, near suburban Hilliard.

The 460-acre yard, scheduled for completion by the end of the year, is some 32% complete, with 90% of the main yard grading and drainage completed.

The new Columbus Yard will be one of the most modern rail facilities in the world. It will have a high-speed, computerized, 40-track freight classification section to expedite freight car switching and make-up of cross country trains. A 128-car auxiliary yard for local traffic will speed service to Columbus and Ohio shippers.

The new yard will be equipped with a 10-track receiving section and an 8-track departure area, diesel engine shop with fueling and sanding facilities, freight car repair shop and car cleaning tracks.

Construction in the new yard includes $1.5 million of grade separations to assure unimpeded flow of both rail and highway traffic in the area. Five are rail-highway separations and one is a rail bridge over other yard trackage. The cost of four of the bridges is being borne entirely by PC. The railroad is sharing the cost of another with private industry and that of the Interstate 70 crossing with governmental units.

An added benefit of the new electronic, pushbutton yard is that it should eventually permit PC to close several of its smaller Columbus area yards, consolidating PC's operations while making land available for industrial and civic expansion. ■

Rails seek reforms in mail laws

Starr Thomas, vice president—law for the Santa Fe, emphasized to the House Committee on Post Office and Civil Service that present statutes dealing with mail transportation are obsolete and that the railroads ask only "to be treated as fairly as their competitors and that obsolete provisions which unfairly burden the railroads be repealed."

Testifying as chairman of a committee of counsel for the AAR's railway mail transportation division. Thomas called for the elimination of existing territorial restrictions which limit the opportunity of railroads to provide motor vehicle service for the Post Office to those areas already served by rail. Other carriers, he noted, would not be similarly limited.

Another inequality cited is a requirement that the railroads carry postal officials without charge. Motor carriers and freight forwarders are not equipped to transport passengers, he noted, and highway passenger carriers handling the mail are not required to provide free transportation. Thomas suggested limiting the privilege to postal officials actaully in charge of mail moving on a train or other vehicle.

Two other provisions of present law were cited for non-retention. Under these, carriers can be required to furnish special railway or highway post office cars for sorting mail enroute as well as station facilities for postal work. Recalling the 1967 decision to transport letter mail by air, Thomas said, "This action immediately made obsolete hundreds of RPO cars which the railroads had built and equipped under the obligatory provisions of the present law." He added that "if the railroads are not released from this obligation, they should at least be protected against any future investment they are forced to make."

Thomas' other recommendations included:

—Fines for refusal of service and "other delinquencies" in mail transportation should be assessed equally and an opportunity provided for a carrier to appeal adverse decisions to the ICC.

—All contracts for mail service should be filed in advance with the ICC to include full public disclosure.

—The Post Office should be required to deal only with carriers paying the prevailing wage in an area. ■

FRANK MALONE

WATCHING WASHINGTON

YOU PLAY a good game of High Finance, you say? Try to follow the money maze designed to turn Washington's Union Station into a national visitor center. You'll discover an ingenious plan to (1) relieve two railroads of a costly white elephant; (2) give the Government a bargain in monuments; (3) give the public a modern rail terminal, plus a place to park both humans and autos.

THE PLAN starts with co-owners Penn Central and Baltimore & Ohio borrowing $16 million. That would cover alterations worth $5 million and a multi-level, 4,000-vehicle parking facility worth $11 million.

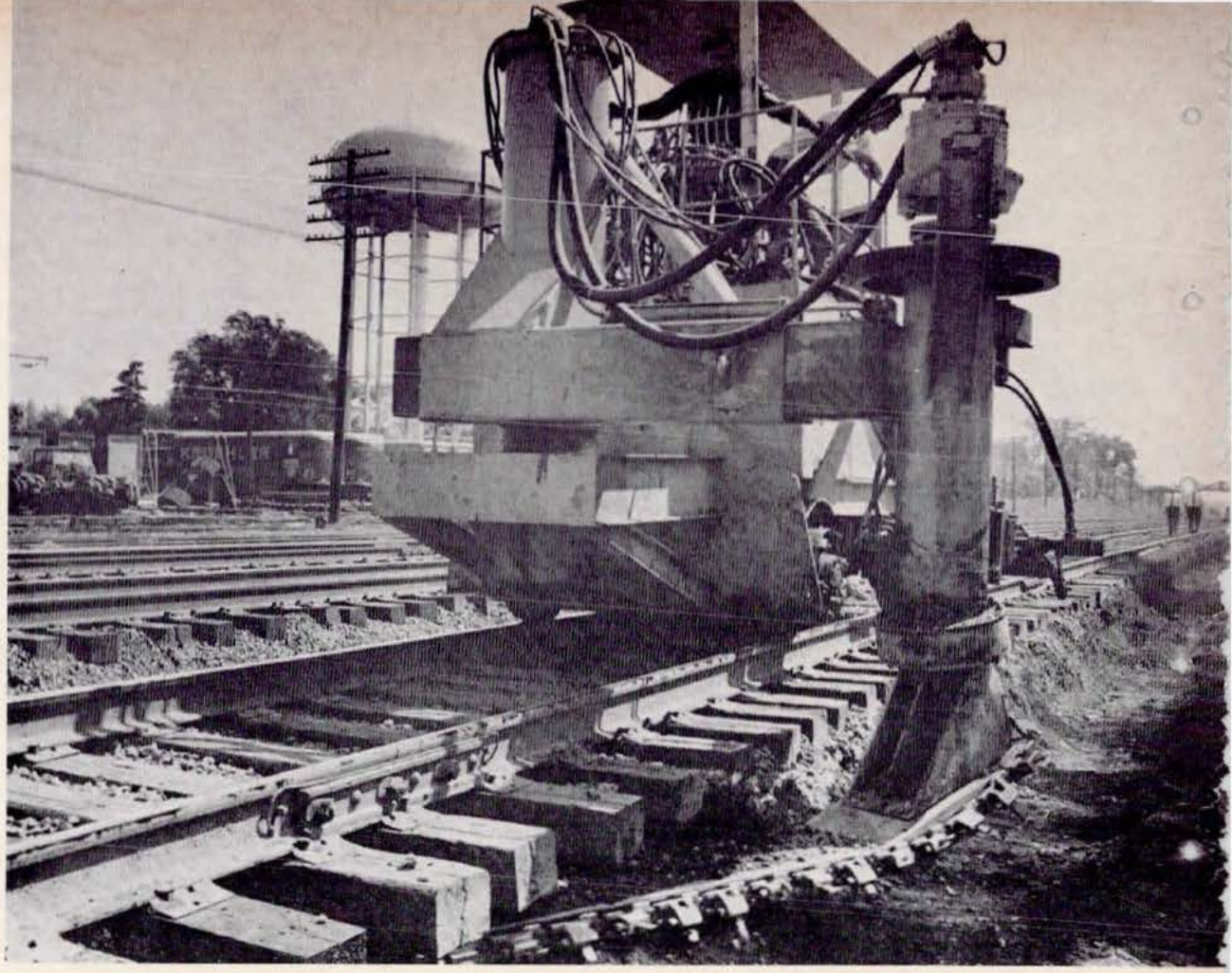
THEN the railroads give the building *and* money to the National Park Foundation. This relieves them of the task of managing the renovation—and of the annual tax bill. NPF is a non-profit organization set up as an auxiliary to the Interior Department's National Park Service.

THIRD, NPF does the contracting. When the project is finished (1971), the Government leases the 18-acre complex from NPF for 25 years. Annual rent is $3.5 million.

THAT MUCH is simple. Behind this we'll-take-it-off-your-hands-if-you-provide-the-money-to-fix-it-up idea are two mortgages. The railroads undertake one for $16 million to cover the loan, and another for $27 million, to cover the assessed value of property.

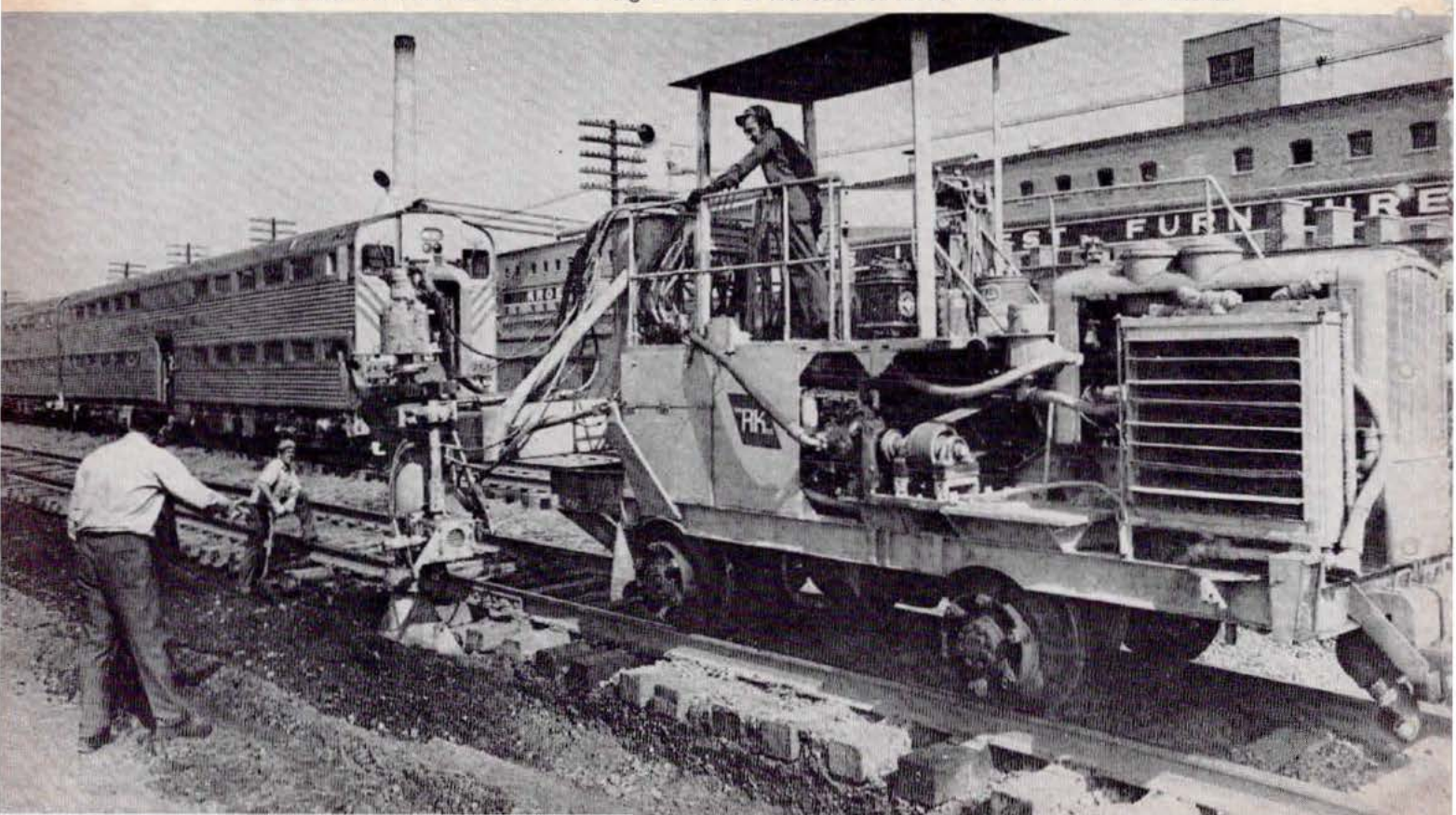
THAT means payments. Interest on the first mortgage would be 7% annually, and on the second it would be 5%. Together with principal, that means total annual payments of about $3.2 million. NPF will take care of that. Remember, NPF is getting $3.5 million each year in rent from the Government, whose Park Service operates the center and the parking facility. And the Government covers the annual rent through the estimated $1.5 million it gets in operating revenue, and with public funds.

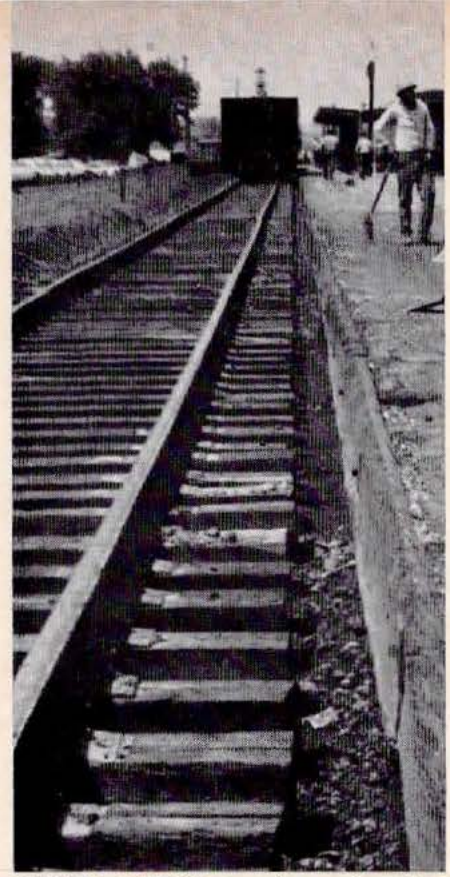
WILL it work? Everybody concerned should hope so. First, the Government, at the end of its 25-year lease, could buy the whole thing from NPF for one dollar. It would have paid the railroads only the fair market price of the present ($27 million), not the greatly escalated price of 1996. Second, the railroads get rid of an annual $2.1-million tax burden. Third, the District finds some relief for its parking problems and the public finds that the District is a nicer place to visit.



New machine makes hard

BURLINGTON used the machine to dig a trench at rail ends to make room for undercut material.





SPECIAL DESIGN permits undercutting track along passenger platforms.

FULL WIDTH of track can be undercut from either side with new machine.

job easy

Trackmen know that when ballast becomes fouled, maintenance costs go up. Joints start pumping mud, rail ends become battered, the ballast becomes cemented, the track loses its resiliency and rides "hard."

The answer is to remove the old ballast and replace it with fresh material. But the problem is to remove the old ballast.

A number of machines are available for removing cemented ballast in open track, but no production-type machine has been available for doing this work through turnouts or along tracks adjacent to station platforms where clearances are limited. Until recently, this work had to be done by hand which was expensive and discouraged efforts to keep this track properly maintained in these areas. A new machine, designated the Switch Skeletonizer, has now been introduced by the Royce Kershaw Co., Inc., to accomplish this work.

This unit was observed working on the Burlington in its Chicago suburban-service area. Owing to the frequent application of sand by locomotives when coming to a stop and when starting at stations, the ballast at the suburban stations becomes too foul to allow proper drainage. As a result, the Burlington reports that the ties do not support the track properly in wet weather and general maintenance is increased.

The track through station platforms cannot be raised on fresh ballast as is done on open track between towns without also going to the expense of raising the platforms for their entire lengths. Even if this were done, other problems would have to be met, such as raising station shelters and buildings, meeting grades at street and road crossings and possibly altering the lighting and signal facilities.

● **Track is hard to maintain.** According to W. A. Thompson, Burlington's superintendent-automotive and work equipment, the tracks through the station grounds at Naperville, Ill., Lisle, Belmont and Western Springs and through an interlocking plant at Eola were hard to maintain due to the fouled ballast. The tracks and the eight turnouts involved needed skeletonizing to restore life to the track and to reduce maintenance. This was considered too costly to be done by hand. That is why Thompson says his road was anxious to try out Kershaw's new unit on this trackage.

The Switch Skeletonizer has an endless chain equipped with cutting and raking teeth. Except for the end where the power is applied, the chain lies in a horizontal plane and its race is supported by an arm, 12 feet long. At the power end, the chain support rises at an angle so that the chain will cast the undercut material beyond the end support. This is necessary to prevent fouling the driving gears.

The machine is designed so that the undercutting arm can be raised and lowered; swung transversely to place it at right angles, at an angle or parallel to the track; and moved laterally. These movements enable the machine to undercut turnouts and multiple tracks spaced at close track centers. It undercuts from five to six inches below the bottom of the ties.

● **Material disposal.** Thompson points out that for best results the track shoulder on the power-end of the cutting arm must be dozed out or trenched to provide room for the undercut material. He furnished Roadmaster R. P. Johns with two Burro cranes with clamshell buckets, a motor grader and a Speed Swing to dig the trenches along the three main tracks. Where possible, trenched material was deposited directly along the roadbed shoulders; otherwise, it was loaded into cars for disposal elsewhere. Also, the signal and track forces located and marked the points where bootlegs and drainage catchbasins would be encountered so the machine could work up to and around these obstructions.

For doing this work, Roadmaster Johns had the uninterrupted use of the main track on which he was working from 8 a.m. until 5 p.m., at which time the track had to be returned to traffic. His usual procedure was to work the Switch Skeletonizer from 8 a.m. until about 1 p.m., during which time from 660 feet to 860 feet of track would have been skeletonized—this footage being dependent upon the cemented condition of the ballast, the presence of bridges and road crossings, and the time required for changing out worn teeth on the cutting chain.

● **Works itself under track.** When starting work, the operator of the Switch Skeletonizer positions the cutting arm parallel with the track, lowers it to below the bottoms of the ties, starts the chain movement and slowly swings the arm, letting it work itself under the track. When working along station platforms, the arm is positioned at an angle to place its free end at the curb face. Where no platform is present, the operator positions the cutting arm at right angles to the track. When working under a turnout, he positions the arm so as to undercut one track. Then, using a turntable with which the machine is equipped, he turns the machine and undercuts the other track.

Immediately behind the machine, miscellaneous work such as straightening and spacing crossties, resetting rail anchors and smoothing the roadbed, is accomplished.

Johns had the ballast-unloading work train timed for arrival about 1 p.m. so that the track could be filled with ballast to prevent buckling during the heat of the day. The remainder of the afternoon was spent in raising, surfacing and lining track. For this work he used two Jackson Track Maintainers, a Nordberg Trakliner with Line Indicator and a Nordberg Power Jack. The latter was used for making the high lifts and also, ahead of the Switch Skeletonizer, for loosening the track in the cemented ballast.

Thompson reports the Burlington is getting a great deal of work accomplished that would normally be most difficult to do without the benefit of this type of equipment. ■

PEOPLE IN THE NEWS

BURLINGTON.—Forester J. DuSell, assistant to the general manager-staff, named manager of the newly created suburban services department.

CANADIAN NATIONAL.—R. E. MacKinnon, engineer of maintenance, Assiniboine Area, Winnipeg, appointed terminal superintendent, Port Arthur, Ont. **A. E. Bartlett,** trainmaster, Port Arthur, named assistant superintendent, Lakehead Area. **J. R. Hibberd,** trainmaster, Lakehead Area, promoted to assistant superintendent, Winipeg. **B. E. Skonberg,** trainmaster, named master mechanic, Port Arthur. **D. K. MacIver,** road foreman, Sioux Lookout, named trainmaster there. **J. M. Thomson,** acting trainmaster, Gillam, Man., named trainmaster, Port Arthur. **Bert Melnyk,** acting trainmaster–road foreman, Fort Frances, named trainmaster there; **A. G. Holliday,** trainmaster–road foreman, named trainmaster, Lakehead Area, Winnipeg. **N. R. Smith,** terminal superintendent, Symington Yard, Winnipeg, appointed transportation officer, Prairie Region. **A. J. Percival,** trainmaster, Lakehead Area, succeeds Mr. Smith. **G. G. Ripley**, regional rules supervisor, Prairie Region, appointed transportation assistant, Assiniboine Area, Winnipeg. **W. G. Threlfell,** trainmaster–road foreman, named master mechanic, Winnipeg. **P. K. Ausborn,** trainmaster, Melville, promoted to assistant superintendent there. **T. G. Hodgins,** trainmaster, Brandon, appointed assistant superintendent there. **J. R. McPake,** general yardmaster, Melville, named trainmaster, Symington Yard, Winnipeg.

CANADIAN PACIFIC.—W. A. Smith, engineer track, Montreal, promoted to assistant chief engineer there, succeeding **G. W. Miller,** who retired May 31, after 42 years of service. **J. Fox,** assistant engineer track, promoted to engineer of track. **M. S. Wakely** named assistant engineer of track.

A. J. Cowie, superintendent, Fort William Division, also named acting superintendent, Kenora Division. **J. L. Farrer,** assistant superintendent, Fort William, will have jurisdiction over Fort William Terminal and the Nipigon subdivision from Current River to Fort William. **G. H. Emery** appointed assistant superintendent, Fort William, with jurisdiction over the Kaministiquia and Ignace subdivisions. The territory of **W. H. Paffard,** assistant superintendent, Kenora, will include Kenora Yard and the Keewatin and Lac du Bonnet subdivisions. **A. S. Harris,** night chief dispatcher, Moose Jaw, Sask., promoted to assistant superintendent there, succeeding **C. J. Flear,** named assistant superintendent, Prince Albert, Sask.

COLORADO & WYOMING.—John G. Burnett, assistant superintendent, appointed superintendent, Middle division, to succeed

Forester J. DuSell
Burlington

John G. Burnett
C&W

Albin A. Blazina, retired. Mr. Burnett will continue to make his headquarters in Pueblo, Colo.

ERIE LACKAWANNA—A. G. Dustin, assistant to vice president–operations, appointed superintendent, Scranton Division, Scranton, Pa., succeeding **Harold J. Farley,** named superintendent, Susquehanna Division, Hornell, N.Y. Mr. Farley succeeds **Edwin J. Robisch,** appointed superintendent yards and terminals–system, Hornell. **E. Q. Snyder,** terminal trainmaster, Chicago, named assistant superintendent, Marion Division, Chicago. **J. W. Conner,** assistant superintendent, Bison Yard, Buffalo, appointed superintendent–passenger, Hoboken. **M. R. Fleckenstein,** yardmaster, Buffalo, succeeds Mr. Connor.

Four new positions created, each with the title of division director data control: **John G. Drake,** Hoboken, N.J.; **Theodore Gurka,** Susquehanna and Scranton Divisions, Binghamton, N.Y.; **Edward R. Hogan,** Marian Division, Marion, Ohio; and **Alfred P. Luedtke,** Youngstown, Ohio. Mr. Drake was formerly superintendent passenger, New York Division; Mr. Gurka, agent at Binghamton; Mr. Hogan, assistant superintendent, Marion Division; and Mr. Luedtke, assistant trainmaster at Youngstown.

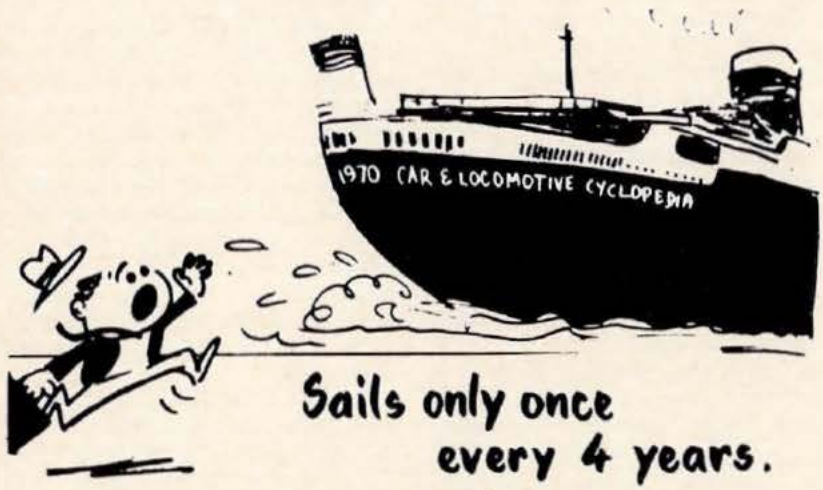
Stuart P. Hopkins appointed division engineer, Susquehanna Division, Hornell, N.Y., succeeding **Ronald H. Jordan,** who retired July 1, after more than 40 years of service.

GREAT NORTHERN.—David F. Ylkanen named manager, salary administration, St. Paul.

ILLINOIS CENTRAL.—William J. Taylor elected vice president, executive department, IC and Illinois Central Industries, with headquarters at Washington, D.C. Mr. Taylor was chairman, REA Express, New York, at the time of his recent appointment.

E. L. Wildsmith advanced from assistant manager special equipment control to director special equipped car control; **J. M. Reckley** from assistant manager car utilization to director general purpose car control; **T. M. Murphy, Jr.** from manager data control, Jackson, Tenn., to director car control Southern Lines; **H. F. Parmly** from manager data control, New Orleans, to director car control Northern Lines; **L. L. Herndon** from equipment utilization analyst to director-quality control.

(Continued on page 30)



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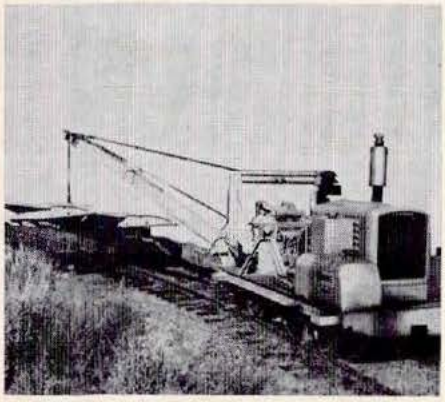
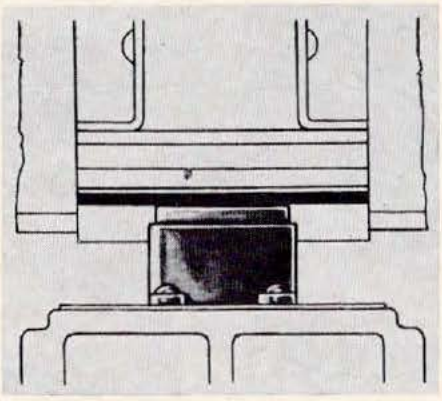
NEW PRODUCTS REPORT



Heavy-duty boom (RA-1)

For passing ballast plows and sleds around obstructions, a Heavy-Duty Boom has been made available as optional equipment on the Mannix Winch Cart. When the cart is used to pull the Mannix Auto-track, the boom eliminates the need for an extra crane for loading and unloading the under-track equipment. This combination also can be used to handle many lifting and pulling jobs that would otherwise require more expensive equipment. *Mannix International, Inc.*

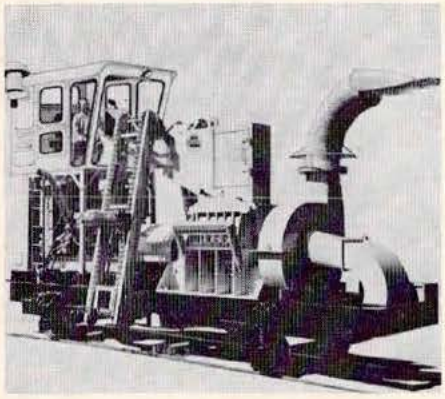


Resilient side bearing (RA-2)

The Symington constant-contact resilient side bearing is designed to maintain light, constant contact between truck and body, providing non-harmonic yielding and reducing carbody roll and truck shimmy. Model RSB-13 for 70-ton cars has a rubber spring; Model RSB-14 for 100-ton cars incorporates a polyurethane spring. Either spring assembly is held in a high-tensile cast steel base and is protected by a hardened cast-steel cap. *Dresser Transportation Equipment.*

Lift trucks (RA-3)

Most of the new Lancer sideloading lift trucks, in 18 capacities from 3,500 to 100,000 lb, feature power steering, automatic transmission and power brakes. Trucks of 44,800- and 67,200-lb capacity may also be had with a special top lift attachment for handling 20- and 40-ft containers. The trucks can load and unload containers from cars or trucks, or raise them from shipping docks, then transport them to storage areas. A 7,000-lb electric model is for in-plant use. *Allis-Chalmers.*



Tie destroyer (RA-4)

An on-track machine has been developed for the disposal of crossties removed from the track. Designated the Montomery Tie Destroyer, this machine is said to incorporate the best designs from each of eight units that were previously produced to the separate designs of the railroads using them.

It is a self-propelled diesel-driven unit of heavy-duty, all-welded construction. It is claimed that the cutters are designed for abrasive service and will grind spikes, "dead-heads," S-irons and embedded ballast, but are protected against damage from "tramp" steel, such as tie plates, by external shear bolts and internal shear pins.

It is available in two models. One handles whole ties and is fitted with a hydraulic grab operated from the cab to load and feed ties to the machine. The other model is designed for grinding up cut tie sections and is equipped with conveyors on each side for feeding the machine. Both models have a blower and swivel discharge to blow the small ground-up pieces to the desired location. *Jacksonville Blow Pipe Co.*

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ADDRESS .....

COMPANY .....

CITY ..... **STATE** ..... **ZIP** .....

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William J. Taylor
IC

James B. Clark
L&N

James I. Adams
L&N

Nathalie J. Alward
MeC

Carl D. Rogers, Jr.
Milwaukee

T. K. Warner, Jr.
PC

(Continued from page 28)

ILLINOIS TERMINAL.—W. E. Sostman named general superintendent, St. Louis.

LOUISVILLE & NASHVILLE.—James B. Clark, chief engineer, named to the newly created position of assistant vice president-personnel, with headquarters continuing in Louisville. **James I. Adams,** general superintendent, communications and signals, succeeds Mr. Clark.

Richard I. James, general agent, Peoria, Ill., transferred to Terre Haute, Ind. **Richard L. Price,** formerly freight sales manager, **Chicago & Eastern Illinois,** Danville, Ill., named general agent, **L&N,** Danville. **George M. Reynolds,** general agent, Cleveland, becomes regional sales manager-Pacific Coast, San Francisco. **Donald P. Iller,** commercial agent, Nashville, Tenn., named district sales manager, Cleveland, to succeed Mr. Reynolds. **Roy E. Herrington,** division freight agent-car utilization, Mobile, Ala., appointed general agent, Jacksonville, Fla., succeeding **Emmett G. White,** who retired June 30 after 45 years of service. **C. R. Spitznagel,** supervisor, rates, Louisville, named assistant to manager, freight rates, Chicago. **Arthur B. Crowe,** manager, industrial development, Louisville, named general manager, industrial development.

Woodson Knight, manager of publications and company relations, named public relations manager. **Martin J. RoBards,** managing editor, L&N Magazine, appointed editor.

MAINE CENTRAL—PORTLAND TERMINAL.—Miss Nathalie J. Alward appointed director of public relations, Portland, Me., succeeding **Joseph H. Cobb,** who has resigned to become director of public relations for Maine Medical Center on July 1. Miss Alward joined the MeC three years ago as a secretary, Operating Department. Previously she was a news writer for radio stations and newspapers.

MILITARY TRAFFIC MANAGEMENT & TERMINAL SERVICE.—Edward C. Wilson, assistant chief, General Freight Division, St. Louis field office, Eastern Area, retired June 25.

MILWAUKEE.—Carl D. Rogers, Jr., manager of systems and procedures, Chicago, named director of data systems and operations there.

Raymond N. Dosch, district manager-sales, Aberdeen, S.D., transferred to Los Angeles. Mr. Dosch's successor is **Richard G. Williams,** sales representative, Green Bay, Wis.

Hayes ...for quick shipment of approved

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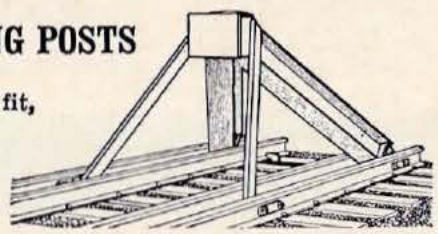
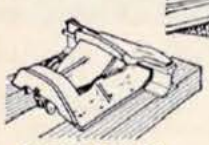
All-Steel,
Universal fit,
Six Types





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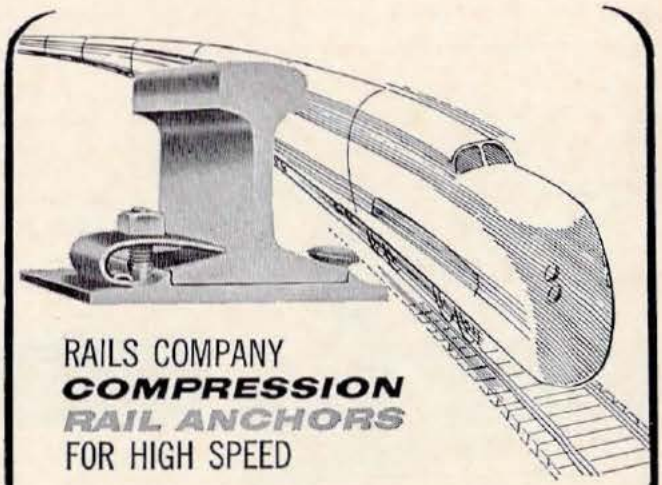

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Circle 11 on coupon page 29

NORFOLK & WESTERN.—**Robert E. Claytor,** senior vice president, who has been directing the legal department in addition to his other duties, moved to the Executive Department on July 1. **John S. Shannon,** general counsel, named vice president—law and will direct legal activities.

PENN CENTRAL.—**Theodore K. Warner, Jr.,** vice president—accounting and taxes, promoted to vice president—corporate administration. He will retain supervision of tax matters. **Jonathan O'Herron** appointed vice president—accounting, and **Alfred W. Martinelli** named assistant vice president—accounting. Mr. O'Herron was executive vice president and treasurer, and Mr. Martinelli was vice president—finance, Buckeye Pipe Line Co., a wholly-owned PC subsidiary.

William C. Corbin, district sales manager, Houston, Tex., named division sales manager, Kalamazoo, Mich. **Lawrence E. Williams, Jr.,** senior industrial engineer, Eastern Region, Philadelphia, appointed regional industrial engineer, Western Region, Chicago.

Thomas J. Carroll, stationmaster, North Philadelphia, appointed stationmaster at 30th Street Station, Philadelphia, succeeding **Harry W. Hall,** who advances to passenger trainmaster in charge of operation of long distance and commuter trains serving the Philadelphia area.

READING.—**Julian R. Greene,** assistant to comptroller, **Baltimore & Ohio,** Baltimore, Md., named vice president—finance, **Reading.**

Appointments announced in the Reading Data Processing Department: **Robert H. Newton,** manager of operations to manager of programming; **Joseph L. Rufino,** senior programmer, to manager of operations; **Eugene F. Dougherty,** assistant manager of information systems, to manager of information systems; and **James H. O'Donnell,** senior programmer, to assistant manager of information systems.

Lowell T. Woods, assistant district claim agent, Philadelphia, promoted to district claim agent, succeeding **Louis A. Roatche,** who retired May 31, after more than 43 years of service. **Lawrence W. King** succeeds Mr. Woods.

SUPPLY TRADE

Robert E. Abbott has been appointed sales manager, **Ortner Freight Car Co.,** a subsidiary of Ogden Corp., Cincinnati, Ohio. Mr. Abbott was formerly with the **Freightmaster Division** of **Halliburton Services, Inc.,** Fort Worth, Tex., prior to which he was a member of the staff of the Association of American Railroads Research Center, Chicago.

J. B. Griffith, sales engineer, Signal & Communications Division, **Westinghouse Air Brake Co.,** Philadelphia, transferred to Atlanta, Ga. He will continue to report to **W. R. Fisher,** manager, Eastern Region.

Eugene S. Stein has been appointed sales and service representative—brake systems, **American Steel Foundries,** Hammond, Ind.

Jonathan O'Herron
PC

Alfred W. Martinelli
PC

Julian R. Greene
Reading

Robert E. Abbott
Ortner

Woodings Rail Anchors have
MORE RESERVE POWER
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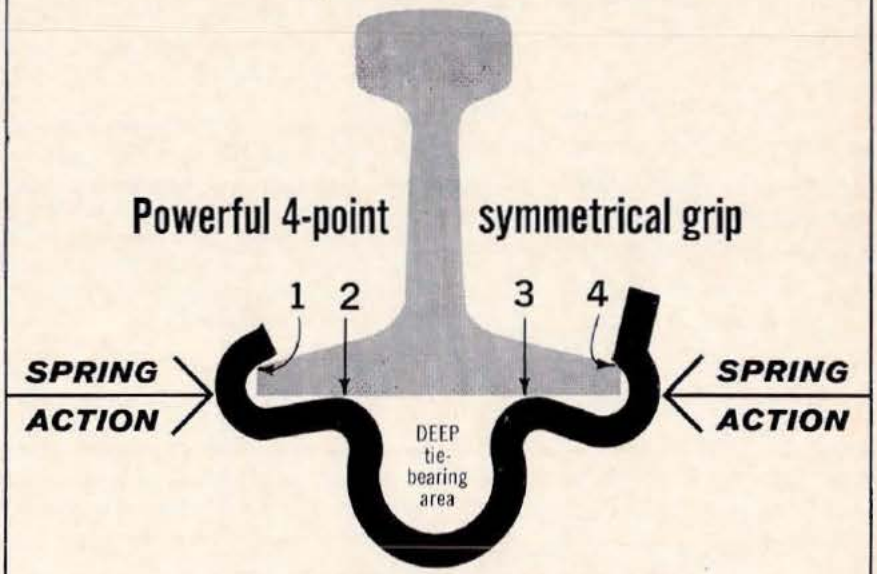

The powerful spring compression grip of the Woodings Rail Anchor is backed up by wide and deep tie-bearing area. Together they give the Woodings Anchor its extra reserve power, enable it to hold fast under the most severe conditions.
High reapplication value, excellent for machine application, best for welded rail.

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Roles for testing and research

(Continued from page 20)

forward. It is interesting that in bidding for a recent lot of high-speed transit cars, none of the old-line companies was the successful bidder. An aerospace firm out on the West Coast was the low bidder. I think that shocked the whole industry, as a matter of fact.

Perlman: This is the whole concept. I speak from experience, because I made some enemies in the AREA at the time with the concept that the AAR Center would be a technical group that understood the problems of the industry and could help the suppliers. As I said, I think there is a turnaround in the feeling of the industry. Five years ago ACI would have been impossible. It was a pretty rough go as it was, at the time we got them through. But there is a realization now, I am sure, that unless we grasp some of this space-age technology, we're done as an industry.

Q. Railroads have long made somewhat of a fetish of the fact that many of their materials and material specifications and material problems are unique —different from those of other transport modes and certainly different from manufacturing industries. Is this really a legitimate appraisal?

Perlman: I don't think any materials are unique to anyone, but we have more of a problem because we are the only form of transportation that has to furnish its own right-of-way. It's a real problem that other forms of transportation don't have.

Q. Therefore you get into more specifying of right-of-way materials, for instance, than does another kind of transportation company. . .

Perlman: Yes. Another company, a trucking company, an airline, wouldn't have any right-of-way materials. Another factor is that most of the other specifications set up in the air industry and the trucking industry are really set up by government organizations because the rights-of-way are government financed.

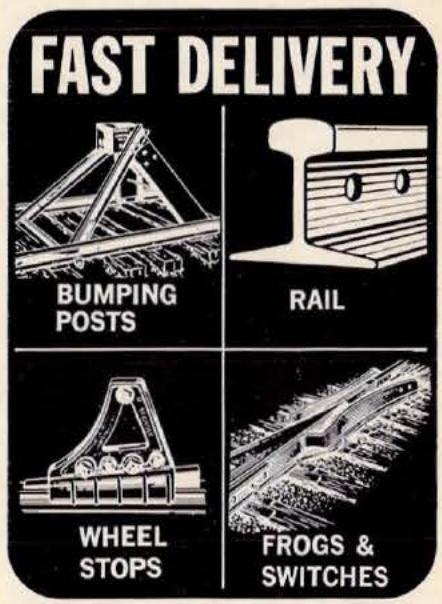
Q. The AAR Engineering and Mechanical Divisions have elaborate standards for many products. Are these necessary?

Crane: Yes, they are. Many of them find their basis in ASTM specifications and conversely some ASTM specifications find their basis in AAR standards. As an example, specifications for rail generally have their origin in the American Railway Engineering Association. ASTM standards for rail follow the AREA standards, and are modified because primarily they serve as the basis for rail which is sold for export, for coal mines and other such applications. Conversely, when you talk about diesel fuel or cement, specifications have their basis in ASTM with AREA and AAR specifications very frequently simply referencing directly to the ASTM standard. In some areas, the railroad has unique requirements and in others the requirements are within the envelope of the voluntary standardization procedure. Often railroads don't swing enough weight as a consumer in a field to have a standard tailored for their specific requirement.

Q. Does this mean that ASTM has some standards for very specialized products for some industries—or would they generally be concerned with steel of rail quality rather than steel rail as such?

Crane: It is interesting that when ASTM was founded in 1898, two of

(Continued on page 38)



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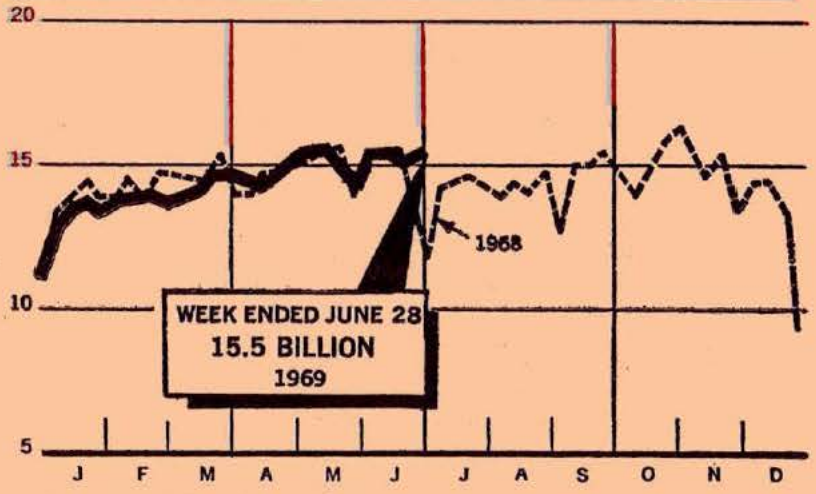
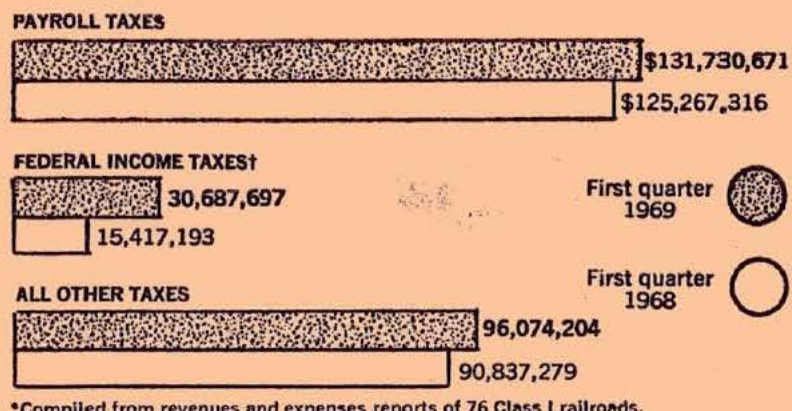


Source: Association of American Railroads

RAILROAD TAXES*

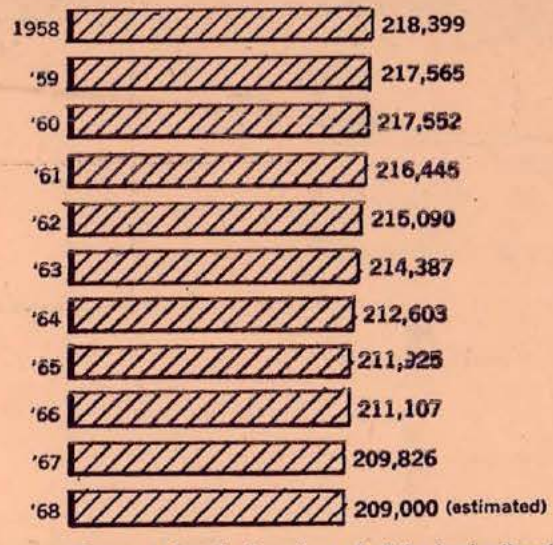


*Compiled from revenues and expenses reports of 76 Class I railroads.
†Includes income tax, surtax and excess profits tax.
Source: Bureau of Accounts, ICC.

Current Statistics

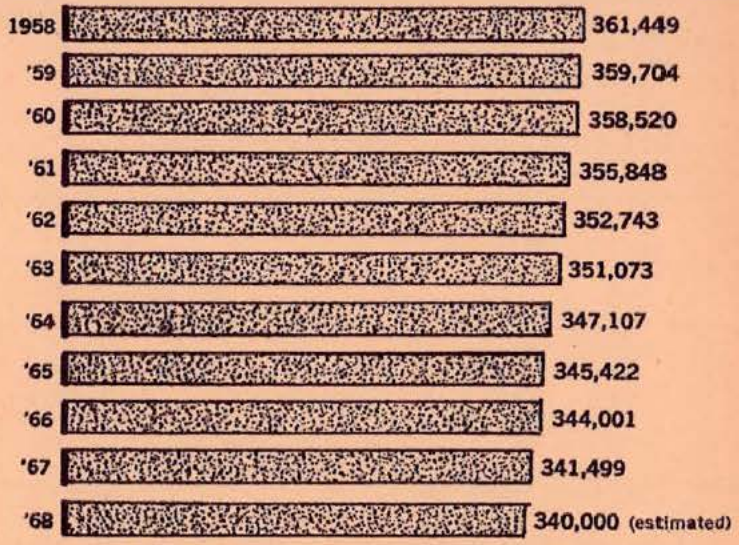
Net Income, Class I roads	
Three months, 1969	$ 97,000,000
Three months, 1968	$111,650,113
New freight cars on order	
June 1, 1969	47,445
June, 1, 1968	19,281
New freight cars delivered	
5 mos., 1969	27,391
5 mos., 1968	26,951
Serviceable cars	
May 1, 1969	1,373,709
May 1, 1968	1,398,772

U.S.A. RAILROAD LINE MILEAGE*



*Aggregate length of roadway of all line-haul railroads. Figures do not include mileage of yard tracks or sidings nor do they reflect fact that a mile of railroad may include two or more parallel tracks.
Source: Economics and Finance Dept., AAR.

U.S.A. RAILROAD TRACK MILEAGE*



*Including multiple main tracks, yard tracks and sidings, owned by both line-haul and switching and terminal companies.
Source: Economics and Finance Dept., AAR.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended July 5 totaled 540,267 cars, the Association of American Railroads announced on July 10. This was a decrease of 126,955 cars, or 22%, compared with the previous week; an increase of 6,676 cars, or 1.5%, compared with the corresponding week last year; and an increase of 44,673 cars, or 11%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended July 5 are estimated at 12.1 billion, an increase of 3.6% above the corresponding week of 1968, and 6.8% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	June 28 week	Preceding week	Per cent change
Grain	32,701	26,301	+24.3
Farm products	13,207	14,884	—11.3
Metallic ores	51,702	50,636	+ 2.1
Coal	107,064	91,483	+17.0
Crushed stone, gravel & sand	34,635	35,206	— 1.6
Nonmetallic minerals	11,482	11,331	+ 1.3
Grain mill products	19,346	20,000	— 3.3
Food & kindred products	22,530	22,956	— 1.9
Primary forest products	23,722	25,361	— 6.5
Lumber & wood products (except furniture)	15,761	15,922	— 1.0
Pulp, paper & allied products	25,830	25,438	+ 1.5
Chemicals & allied products	24,956	26,744	— 6.7
Petroleum products	11,524	11,656	— 1.1
Stone, clay & glass products	22,129	23,793	— 7.0
Coke	7,839	8,111	— 3.4
Metals & products	29,881	29,731	+ 0.5
Motor vehicles & equipment	23,838	25,561	— 6.7
Waste & scrap materials	14,619	15,324	— 4.6
Forwarder & shipper assn. traffic	7,443	7,407	+ 0.5
All other carloads	75,229	71,301	+ 5.5
LCL traffic	1,784	1,852	— 3.7
Total cars loaded	577,222	560,998	+ 2.9

CUMULATIVE TOTAL, 26 WEEKS	1969	1968	1967
	13,928,599	14,022,200	14,002,559

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended June 28 totaled 27,555 cars, carrying 45,703 trailers, compared with 28,117 cars, carryings 46,770 trailers, in the corresponding 1968 week. Loadings for 1969 up to June 28 totaled 663,630 cars, carrying 1,091,810 trailers, compared with 653,691 cars, carrying 1,058,878 trailers, in the corresponding period of 1968.

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rec'd from Connections
June 14, 1969	1,652,335	574,028
June 14, 1968	1,669,241	575,962

FREIGHT-TRAIN CARS

● *E. I. du Pont de Nemours.*—Ordered 70 100-ton aluminum covered hopper cars from Magor Railcar Division. Delivery of the 5,050-cu-ft cars is set for the fourth quarter.

● *Union Pacific.*—Ordered 100 gondola cars from Magor Railcar Division. The cars, for hauling wood chips, will be delivered in the first quarter of 1970.

NEW FACILITIES

● *Norfolk & Western.*—Announced a $2.9-million modernization program for the Shaffers Crossing area of Roanoke Yard. The program will include installation of radar speed control, digital computer-controlled automatic route switching, modern pneumatic car retarders, an air compressor system to operate the retarders and switches, and a building to house the retarder control equipment.

● *Santa Fe.*—Will build a new freight-handling complex in the Casa Linda industrial area of Dallas, at a cost of approximately $2 million. First phase of construction will include a freight-house/office building, a garage and related structures. Later, construction will begin on a crane-equipped TOFC/COFC facility. The new facility will give Santa Fe double the freight-handling capacity of its present terminal in downtown Dallas, which has been sold to interests planning a privately-financed urban development.

● *Southern.*—Purchased a Standard wheel truing machine from Standard Railway Equipment Division of Stanray Corp. for installation in its Chattanooga diesel shop. The machine is designed to recondition wheels without removing them from cars or power units. It is installed in a pit and becomes integral to the shop track, from which equipment may be rolled directly on to the machine.

MAINTENANCE EXPENDITURES

● *First Quarter of 1968 up 4.5% above first quarter of 1968.*—Expenditures by Class I roads for maintenance of equipment, way and structures in the first quarter of 1969 were up about $35.8 million, compared with the first quarter of 1968, according to report of AAR Economics & Finance Department, summarized below.

	First Quarter 1969	First Quarter 1968	% Change
Maintenance of way and structures	$340,673,079	$316,732,408	+7.6%
Maintenance of equipment	490,442,722	478,562,070	+2.5
Totals	$831,115,801	$795,294,478	+4.5

YOU OUGHT TO KNOW

Chicago Transit installs special turnstiles

Exact-fare turnstiles that accept any combination of nickels, dimes and quarters that total up to the fare, and that also issue transfers for an additional nickel, are being installed by the Chicago Transit Authority. The first of their kind ever used on a rapid transit system, the $1,400 turnstiles were cooperatively designed by the CTA's Research and Planning Department and the Tiltman-Langley Co., London, Eng. Of the 134 turnstiles ordered, 25 are now being installed in key Loop elevated and subway stations, according to CTA General Manager Thomas B. O'Connor.

Swedish firm joins CTI container pool

Northern Europe's largest freight forwarder, Transport ASG Spedition of Sweden, has become a participant in the container pool provided by CTI Container Transport International Inc. Fifteen countries with more than 100 terminals are now in CTI's European pool. CTI, a subsidiary of Leasco Data Processing Equipment Corp., operates 30,000 containers.

Hartke takes safety probe to Indianapolis

Vance Hartke (D.-Ind.), Senate surface transportation subcommittee chairman, was scheduled to hold hearings in Indianapolis July 14 on his proposed railroad safety act of 1969. The bill would give the Transportation Secretary power to set minimum standards for rail equipment, facilities and operating practices. Testimony was expected from officials of Dunreith and East Germantown, the scenes of Indiana derailments. FRA Administrator Reginald N. Whitman, also was scheduled to testify, along with local labor and management representatives.

ICC orders one more year for "Cannonball"

The ICC's Division Three has ordered Norfolk & Western to run the Wabash "Cannonball" at least one more year. N&W wanted the St. Louis-Detroit train to come off March 3. It was kept on four extra months during the ICC investigation. Division Three members are Commissioners Willard Deason, Dale W. Hardin, and Kenneth H. Tuggle. Tuggle dissented, saying the majority conclusion did not justify the belief that the public convenience and necessity require continued operation at a loss of more than $500,000 a year with no prospects of improvement. "The public does not support this operation," Tuggle said.

Penn Central adds commuter cars in New York

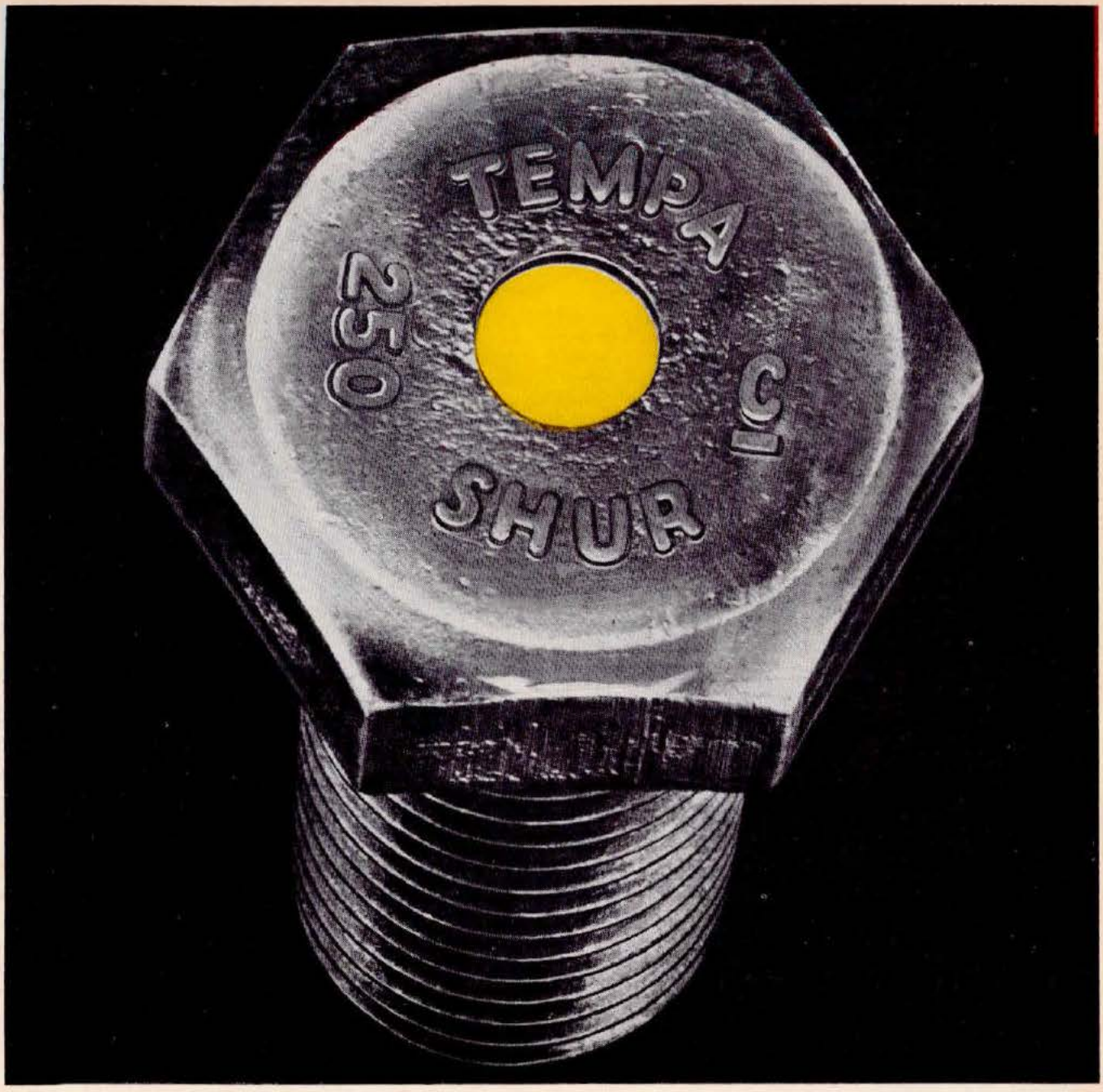
Penn Central is adding 12 streamlined lightweight coaches to its Hudson and Harlem Division commuter service in New York. The refurbished coaches are roller-bearing cars of the type used in mainline passenger service. Each was refurbished at a cost of $44,670, said Leonard W. Maglione, manager-suburban service.

CCI Marquardt plans move in container field

CCI Marquardt Corp. and Star Iron and Steel have reached an agreement-in-principle under which CCI Marquardt would acquire all outstanding Star stock for cash. Star is a manufacturer of container-handling and materials-handling systems for the trucking and marine industries.

ICC orders supply thaw for cold cars

Because the supply of rail refrigerator cars has frozen, the ICC July 7 put into effect an order that equipment of Pacific Fruit Express Co. cannot be backhauled empty nor held empty more than 24 hours. Equipment empty at a station other than a junction with Southern Pacific or Union Pacific, Express owners, must be loaded for routing on or by SP or UP. Cars empty at SP or UP junctions must be delivered to SP or UP. The order expires September 13.



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Circle 14 on coupon page 29

Roles for testing and research

(Continued from page 32)

the founding members of the Society, out of the original five or six, were concerned with rail. One happened to be the chief chemist of a major railroad and the other was metallurgist of a major steel company. Their primary concerns in founding ASTM were to provide a forum for a study of the materials of engineering and specifically for development of the standards and specifications for one product—railroad rail.

The first ASTM committee was A-1 on steel and its first specification was for rail. Their second was A-7 specifying structural steel, then used primarily to build railroad bridges. The AAR and AREA were not even in existence and there was no formal standardization, voluntary or involuntary, in the U.S. In fact there was a great vacuum because standards were just starting to come into being; for this reason ASTM served as the forum.

As the years went on, AAR and AREA began to develop their own specialized requirements; and here the wrought-steel wheel is an example. They were specified and had their origin in the AAR Mechanical Division and their counterpart followed in ASTM specs. In contrast, all rubber products such as air brake hose had their origin in ASTM and were cross referenced in the AAR specifications. I have some background in this because a number of years ago I was chairman of the AREA Committee on Specifications for Materials, and also chairman of the Rail Committee in ASTM.

The first president of ASTM, incidentally, was Dr. Dudley of the Pennsylvania, who was famous for the Dudley rail section. Dr. Dudley's development of that section simply serves to indicate that in the early days the railroad industry was the dominant portion of the industry. The railroads' requirements for materials were big enough so they could take a major interest in ASTM. Now, there are many other large industrial groups with problems; and there is the tremendous technological proliferation. Consequently we have had the expansion of ASTM's interest to span all industry and all materials.

Q. Does AREA have a closer relation to ASTM than has the AAR Mechanical Division?

Crane: I don't think that is really the case, because you will find all the members of the AAR Mechanical Division's Committee on Specifications for Materials functioning in some area of ASTM where they have an interest. The fellow on the Specifications Committee who is interested in rubber products is on ASTM's Rubber Committee and is working with people in that field as the industry advances. It's the same way with the man concerned with diesel fuels. He is working with ASTM Committee D-2; and the same with the man concerned with paint, and so forth.

Q. Does ASTM deal with other industry associations comparable to AAR?

Marshall: There are over 250 associations like that which are very active on ASTM standing committees. These include American Iron & Steel Institute, Technical Association of the Pulp & Paper Industry, Rubber Manufacturers Association, American Concrete Institute, Association of Textile Colorists and many more. ■

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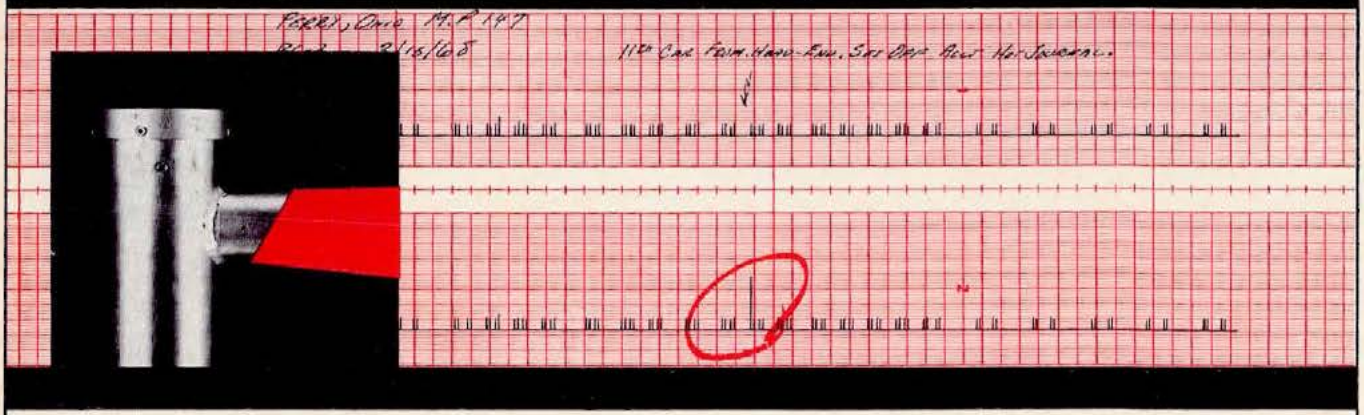

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VIEWPOINT

Washington at mid-year: A new look at the new DOT

The first shock had its epicenter in the White House and can be dated precisely from the moment President Nixon picked John A. Volpe to be his Secretary of Transportation. Publicly, railroad men kept a stiff upper lip. Privately, they chewed it. What would happen with DOT in the concrete grip of a highway builder—the man, indeed, who helped blueprint the Interstate Highway System? We could only wait—and worry.

That shock wave had hardly subsided when along came two more. Volpe went far into left field for a Mass Transportation Administrator, an aerospace gentleman named Carlos Villarreal. (Anguish in rail transit ranks: "All we needed was a rocket salesman!") Then Volpe reached into deep center to pick Reginald N. Whitman as Federal Railroad Administrator. ("Reginald who?" was the industry's first reaction. The second was: "What is a nice operating man like that doing in a place like DOT?") More waiting. More worrying.

So what has happened? We're still waiting for that new "national transportation policy" that is supposed to bring some balance to old, lopsided government policies that have historically favored certain modes over others. But we're no longer worrying like we used to.

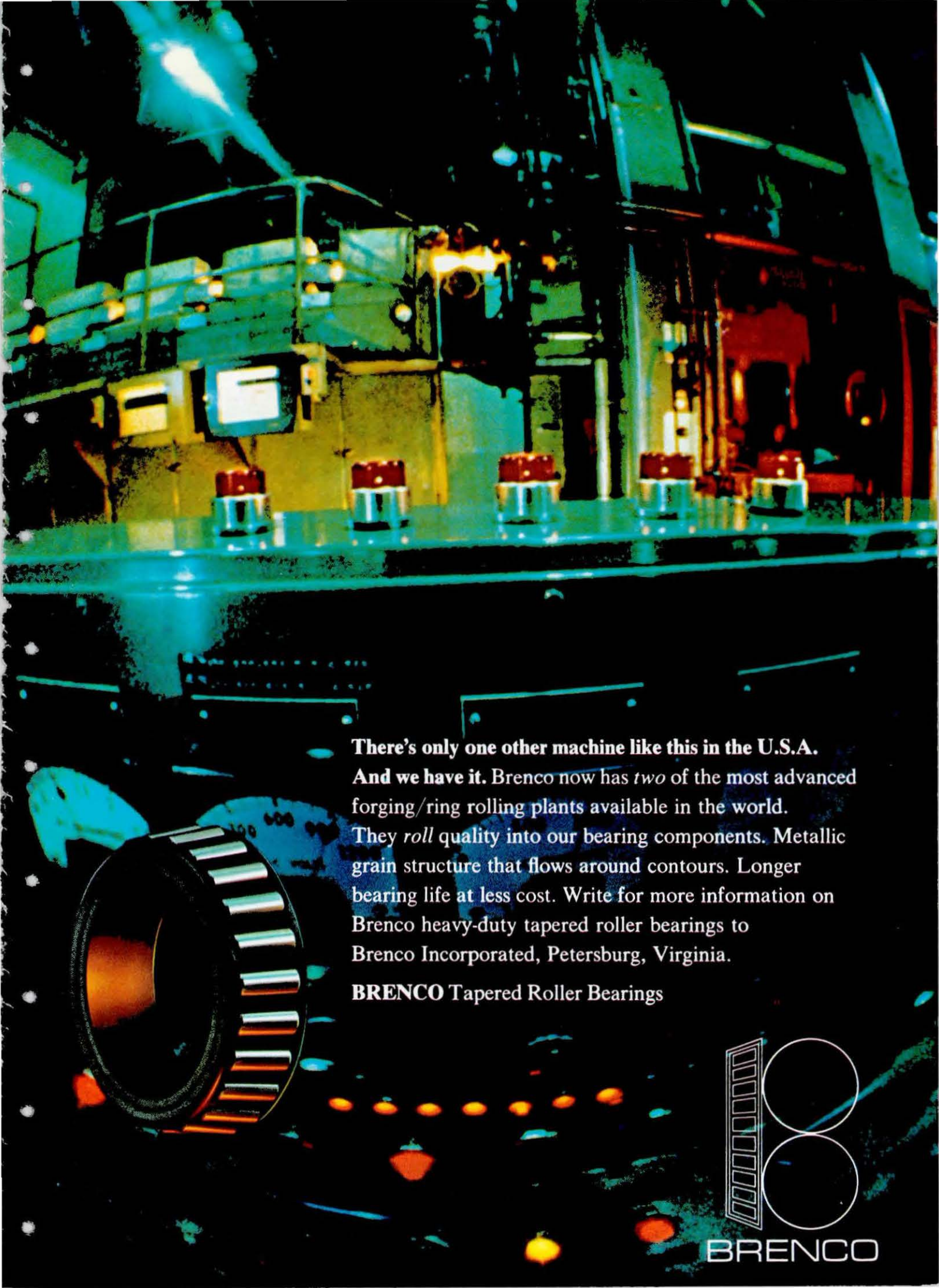
For one thing, Secretary Volpe, erstwhile concrete-mixer, has been going around the country hurrahing railroads as eloquently as nearly any railroader you can name. He flew out to Promontory, Utah, and talked not about the dear, dead days of railroading, but about its "unparalleled and unrecognized potential." He found time between a Cabinet meeting and an appearance before the House Ways and Means Committee to spend 45 minutes with a group of railroad suppliers and told them: "We in DOT will do everything in our power to make possible a favorable climate for investment to keep financial resources within the industry, and not only discourage disinvestment but actively upgrade the entire environment of railroading." Thus did he acutely pinpoint the real problem of railroading—finding money, and lots of it. His listeners went away with the feeling that Volpe meant what he was saying.

Villarreal remains something of a question mark. More than one visitor has come away from his office with the impression that Villarreal's approach to a problem is to plaster it with platitudes. But on paper, at least, he emerges as a strong backer of great infusions of federal money into urban transport.

THE RIGHT MAN AT THE RIGHT TIME

As for FRA Administrator Whitman, he could turn out to be the prize of the lot. He has turned out to be a man with considerably more bite than bark. He clearly enjoys the confidence of the Secretary. He played a key role in bringing a unanimous report out of the Secretary's task force on safety. Whitman has been called "an operating man's operating man." That may be precisely what is needed in Washington right now. Whitman knows what railroading is—and isn't—all about.

If we were marking a mid-term report card for the DOT team, it would have to be an A—for effort and good intentions. Only time will tell if they will pass the finals.



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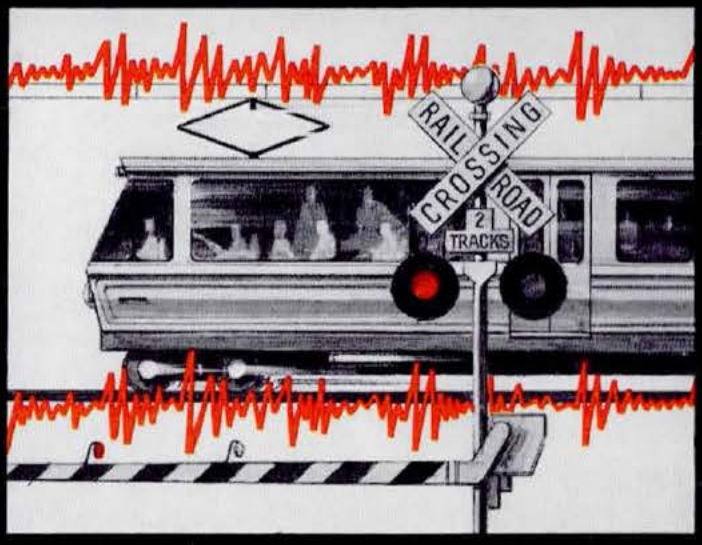

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